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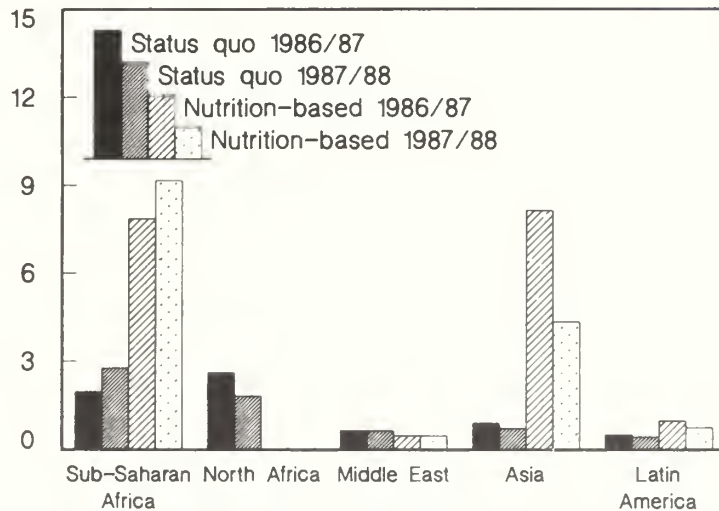
Economic
Research
Service

May 1987

World Food Needs and Availabilities, 1986/87: Spring Update

World Food Needs Decline

Million tons



Cereal equivalent needs in excess of domestic production and commercial imports.

PREFACE

As a result of a Presidential Initiative in the summer of 1984, an Interagency Food Aid Analysis Working Group was established to provide the U.S. Government with the best possible food needs assessment for countries in the developing world. This report is prepared under the aegis of the Interagency Working Group.

An assessment of world food needs has serious implications for both donor and recipient countries, and it has the potential to influence the expenditure of many millions of dollars and affect the lives of many millions of people.

It is, therefore, very important that readers clearly understand the issues that the Food Needs and Availabilities report addresses, and those it does not. This report is not an allocation or programming document, but an objective analytical assessment of food needs. Allocation and programming decisions are made in other forums and consider factors in addition to the food needs assessed in this report.

The assessment of food needs presented herein refers to the *amount of food needed* to cover the difference between a country's domestic food production plus its commercial import capacity, and either of the following two alternative measures of food need.

The *status quo* need is based on a country's recently achieved levels of food consumption, while the *nutrition-based* need is based on FAO's published information on minimum recommended dietary intake for each country. In addition, an estimate is made of the maximum absorbable imports if the highest historical levels of per capita total food use and carryover stocks were to be maintained. This assumes the food delivery systems in most food-aid-recipient countries have been "at capacity" at the highest historical level. None of these measures, taken individually, adequately reflects the range of objectives embodied within P.L. 480 legislation, nor does any one measure capture all factors considered in allocation and programming decisions.

The food need levels reported are for the marketing years 1986/87 and 1987/88. As with any projection, assumptions must be made about future events. The assessment of food needs is based heavily upon projections of food crop production and financial ability to commercially import food. Food production is subject to the vagaries of weather and commercial import capacity is influenced by various international commodity and financial market conditions. Since neither weather nor international markets can be predicted with certainty, the food need levels contained in this report are subject to change.

To reflect current crop conditions and import capacity, each country is reviewed quarterly and an updated food needs level calculated for those countries judged to be facing conditions significantly different from those at the last assessment. For this reason, readers are encouraged to acquire current reports to keep abreast of changing food need levels. Readers are further advised that both the methodology and the data used in the calculations are continually being refined by the Interagency Food Aid Analysis Working Group. This effort reflects the continuing commitment of the U.S. Government to respond more rapidly and adequately to the needs of those countries where food commodity assistance can be used for humanitarian purposes and in the mutual interests of the recipient country and the U.S. Government.

WORLD FOOD NEEDS
AND
AVAILABILITIES, 1986/87

SPRING UPDATE

MAY

1987

DOCUMENTATION

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FOREWORD

This is the third and final update to *World Food Needs and Availabilities, 1986/87*. It includes current regional summary reports and revised reports for the 10 countries having significantly changed needs. This is the final assessment of 1986/87 food needs. A summary of country assessments of status quo and nutrition-based needs is presented in Appendix A. *World Food Needs and Availabilities, 1987/88*, assessing food needs for 1987/88 and making the initial assessment for 1988/89, will be published in August 1987.

The annual reports and supplements serve both the requirement of P.L. 480, as amended, that "global assessments of food production and needs" be submitted to the Congress, and the food needs analysis function of the Interagency Food Aid Analysis Working Group. Information provided through these reports to the Executive Branch and the Congress is employed along with other information in making tentative fiscal 1987 and 1988 food aid budget allocations. The main report and the supplements are also intended to provide detailed updates on food supplies and additional food needs on both a country-by-country and a world basis. This information is also useful to program and policy officials within donor governments and food-aid-recipient countries, analysts in international organizations and universities, and private agencies involved in food aid distribution. The assembly and maintenance of data for the analysis of food needs is a joint effort of the U.S. Agency for International Development (AID) and USDA.

This report presents two alternative measures of the overall food import requirements (commercial plus concessional) and the additional food needs of each country for 1986/87 and 1987/88. The *status quo* and *nutrition-based* assessments are based on two different sets of normative judgments and assumptions regarding the role of additional food and the considerations that might govern its use. The basic assumption underlying the *status quo* assessment is that additional food would be needed to prevent food supplies, and hence consumption, from falling below recent levels. Meeting status quo food needs would in principle stabilize per capita use by filling shortfalls in domestic production and import capacity. The *nutrition-based* assessment addresses the continuing problem of undernutrition in many of the developing countries. The assumption is that additional food would be needed to close the gap between food availabilities and an internationally accepted minimum nutritional standard. The nutrition-based estimates thus provide an aggregate measure of the nutritional gap, net of recipient countries' capacity to import food commercially. Calculation of zero nutrition-based food needs does not mean all citizens have a nutritionally adequate diet. In developing countries, poor nutrition is frequently the consequence of poor income distribution.

Status quo food needs assessments are stabilized by the method of estimating annual base period per capita food use. Base period food use is calculated as the mean of the most recent 4 years that deviate less than one standard deviation from the mean of the most recent 8 years of record. The method is explained in the Methodological Notes section of the August 1986 report. Appendix A to the May, 1986 report presents the results of an assessment employing both the present and the earlier method of calculating base period per capita food use.

The most current available weather, crop production, and financial data were employed in making 1987/88 assessments. Where crop information was not yet available, estimates are based on initial indications of planting intentions and from historical production. With new or changed crop information, production and additional food needs estimates change, sometimes sharply. The quarterly reports issued through the year provide users with assessments based on current weather and crop information. Current updates of assessments on selected countries are available from the Economic Research Service.

Estimates of commercial import capacity assume the continuance of recent experience in debt payment, and thus the availability of foreign exchange for commercial food purchases. Significant changes in debt payment performance would alter food import capacity and additional food needs.

Neither the status quo nor the nutrition-based food needs measures deals specifically with the ability of a country's infrastructure to absorb food aid without overloading port and transportation capacity, and storage and distribution systems. The maximum absorbable food imports assessment frequently limits the quantity of nutrition-based needs that can physically be provided. The "gap" between maximum absorbable and nutrition-based food needs is one measure of the seriousness of a country's food problem. In a very real sense, the magnitude of the task of achieving the financial and physical capacity to import food, or increasing domestic food production consistent with national food demand, is captured by this measure.

The import requirements and additional food need estimates in *World Food Needs and Availabilities* reports are based on national agricultural and economic data. These estimates assist financial and logistics planning by both donor and food aid recipient countries. It should be apparent, however, that additional food need levels are only a part of the calculus, and that delivering imported food to the communities that are deprived by national food production shortfalls or civil disturbances is a major undertaking. Factors bearing on success include local transportation and communications infrastructure, the financial status of both local and national public service agencies, and the availability of international financial support. The quarterly assessments of additional food needs are intended to add to the

information available so that food and complementary financial and technical assistance can be made available in a timely fashion.

Ray W. Nightingale
Food Needs Analysis Coordinator

ACKNOWLEDGMENTS

Ray Nightingale directed the overall planning and preparation of the report. Regional coordination within the Economic Research Service was performed by: Margaret Missiaen (Africa and the Middle East), Rip Landes (Asia), and Chris Bolling (Latin America). Suzanne Marks monitored operation of country estimation modules, ran the regional analysis module, implemented new, more highly automated document processing software used in preparing the report.

The International Economics Division economists providing analysis for the report included: Chris Bolling, Richard Brown, Brian D'Silva, Gary Ender, Albert Evans, Amjad Gill, Rip Landes, Margaret Missiaen, Peter Riley, Nydia Rivera-Suarez, Leslie Ross, Dave Skully, Mark Smith, Fawzi Taha, and Larry Witucki. Dee Linse contributed for the Foreign Agricultural Service.

Richard Shelton provided support in running the country food needs model. Secretaries who helped prepare the report included Betty Acton, Rhodia Ewell, Jamesena George, Lori McPherson, and Alma Young.

Interagency Food Aid Analysis Working Group reviewers for the Agency for International Development were Patricia Rader, Food and Voluntary Assistance, Henry Merrill, Africa Bureau, Don Sillers, Asia-Near East Bureau, Howard Steele, Latin American Bureau. Ross Quan and Scott Danaher reviewed the report for the Department of State.

Reviewed and approved by the World Agricultural Outlook Board.

SUMMARY

The detailed country tables and narratives in this report include information on the quantities and dollar values of assessed additional food needs, including the need for cereals, pulses, vegetable oils, and dairy products. This summary covers just additional need for cereal, the principal commodity employed in international food aid. Food needs assessments for 1986/87 and 1987/88 are based on information available in early April 1987.

Reports are present on just 10 countries in which there were significant changes. Although the number of countries affected are few, the change in assessed food needs is significant for some regions.

Assessed cereal needs in 1986/87

Status quo cereal shortfalls for 1986/87 in 69 developing countries are estimated at 6.6 million tons, down only 33,000 from the February estimate and about 1.2 million below estimated needs for 1985/86.

In Sub-Saharan Africa, status quo cereal needs for 1986/87 are placed at 2 million tons, up 448,000 tons from the February assessment. Needs continue to be greatest in East Africa, where Ethiopia requires 860,000 of the 978,000-ton total, and in Southern Africa where Mozambique requires 538 of the 566,000-ton total. However, assessed needs in Sub-Saharan Africa are down over 1 million tons from 1985/86, including a nearly 700,000 decline in East Africa.

Status quo needs in Asia, at 900,000 tons for 1986/87, are down 516,000 tons since February. South Asia dominates with Afghanistan having needs of 260,000 tons and Nepal 214,000. Latin American status quo requirements, assessed at 512,000 tons for 1986/87, are up 35,000 tons since February, mainly from food production shortfalls in Bolivia.

The 69 countries are estimated to be short 17.5 million tons of cereals to meet minimum nutritional standards in 1986/87. Nutritional needs are greatest in South Asia at 7.8 million tons and East Africa at 4.3 million tons. Maximum import capacities of 4.5 and 3.0 million tons, respectively, result from limited storage and internal transportation in these countries. Countries having the greatest nutrition-based needs are Afghanistan and Nepal in Asia and Ethiopia and Mozambique in Africa.

When requirements for cereal stock adjustments are added to needs for consumption, total status quo needs are 7.9 million and nutrition-based needs are 18.1 million tons. North Africa has the greatest status quo stock needs.

Assessed cereal needs in 1987/88

Status quo cereal shortfalls for 1987/88 in 69 developing countries are estimated at 6.4 million tons, up 606,000 from the February estimate but about 253,000 below estimated needs for 1986/87. Nutrition-based needs, at 14.7 million tons, are up 960,000 from the February assessment, but are down 2.7 million tons from 1986/87.

In Sub-Saharan Africa, status quo cereal needs for consumption in 1987/88 are placed at 2.8 million tons. Needs are greatest in East Africa where Ethiopia requires 611,000 of the 1.3-million ton total and in Southern Africa, where Mozambique requires 662,000 of the 817,000-ton total. West Africa needs are estimated at 446,000 tons. For all of Sub-Saharan Africa, requirements are up 657,000 from the February estimate, with the largest increases coming in East and Southern Africa. However, status quo needs are up by 801,000 tons from 1986/87 in Sub-Saharan Africa, whereas they are down by 793,000 in North Africa.

Assessed status quo consumption needs in Asia, at 723,000 tons for 1987/88, are down only 51,000 tons since February. South Asia dominates with Afghanistan having needs of 295,000 tons and Sri Lanka 288,000. Bangladesh has no status quo needs, assuming the country would expand commercially imports as in 1984. Otherwise these needs could be one-half million tons. Latin American status quo requirements, assessed in February at 435,000 tons, remain unchanged. South Asian status quo needs for 1987/88 are down 181,000 from 1986/87 and Latin American needs by 77,000 tons.

Nutrition-based needs for 1987/88 are greatest in East Africa, at 4.7 million and South Asia, at 4 million tons. Maximum import capacities are 3.3 and 1.4 million tons, respectively. Countries with the greatest needs are Bangladesh, Nepal, Ethiopia, Kenya, and Mozambique.

When requirements for cereal stock adjustments are added to needs for consumption, total status quo needs are 6.7 million and nutrition-based needs are 15.1 million tons.

Status quo additional food needs have continued to decline as the food situation improves or stabilizes in Africa. Nutritional needs have also declined in some countries, but have continued high or even increased in others. In countries without assessed nutritional needs on an aggregate national level, particular regions or populations still need help to achieve food consumption adequate for health and the energy to be productive.

Additional cereal needs to support consumption, stocks adjustments, and maximum absorbable cereal needs

| Region | Status quo | | Nutrition-based | | Maximum ^{1/} |
|---|-------------|----------------------|-----------------|----------------------|-----------------------|
| | Consumption | Consumption + stocks | Consumption | Consumption + stocks | |
| ----- Thousand tons (cereal equivalent) ^{2/} ----- | | | | | |
| 1984/85 | | | | | |
| Total | 11,745 | 13,450 | 25,767 | 27,472 | 3/ |
| 1985/86 ^{4/} | | | | | |
| Total | 8,811 | 9,503 | 20,253 | 21,036 | 15,014 |
| 1986/87 | | | | | |
| Total | 6,660 | 7,851 | 17,473 | 18,105 | 15,001 |
| Africa | 4,598 | 5,569 | 7,868 | 8,301 | 8,653 |
| North Africa | 2,623 | 3,382 | 0 | 0 | 3,382 |
| Sub-Saharan Africa | 1,975 | 2,187 | 7,868 | 8,301 | 5,271 |
| West Africa | 275 | 332 | 1,416 | 1,479 | 781 |
| Central Africa | 156 | 167 | 312 | 324 | 324 |
| East Africa | 978 | 1,122 | 4,281 | 4,553 | 3,020 |
| Southern Africa | 566 | 566 | 1,859 | 1,945 | 1,146 |
| Middle East | 650 | 738 | 473 | 562 | 562 |
| Asia | 900 | 918 | 8,154 | 8,145 | 4,822 |
| South Asia | 764 | 782 | 7,833 | 7,824 | 4,501 |
| Southeast Asia | 136 | 136 | 321 | 321 | 321 |
| Latin America | 512 | 626 | 978 | 1,097 | 964 |
| Caribbean | 89 | 142 | 167 | 196 | 184 |
| Central America | 379 | 444 | 564 | 640 | 622 |
| South America | 44 | 40 | 247 | 261 | 158 |
| 1987/88 | | | | | |
| Total | 6,407 | 6,761 | 14,735 | 15,107 | 11,253 |
| Africa | 4,606 | 4,835 | 9,172 | 9,397 | 8,205 |
| North Africa | 1,830 | 1,913 | 0 | 0 | 1,193 |
| Sub-Saharan Africa | 2,776 | 2,922 | 9,172 | 9,397 | 6,292 |
| West Africa | 446 | 490 | 1,667 | 1,718 | 910 |
| Central Africa | 193 | 202 | 348 | 356 | 356 |
| East Africa | 1,320 | 1,367 | 4,733 | 4,853 | 3,299 |
| Southern Africa | 817 | 863 | 2,424 | 2,470 | 1,727 |
| Middle East | 643 | 680 | 465 | 502 | 680 |
| Asia | 723 | 794 | 4,353 | 4,447 | 1,734 |
| South Asia | 583 | 564 | 4,024 | 4,118 | 1,405 |
| Southeast Asia | 140 | 140 | 329 | 329 | 329 |
| Latin America | 435 | 452 | 745 | 761 | 634 |
| Caribbean | 74 | 74 | 155 | 155 | 155 |
| Central America | 361 | 378 | 464 | 478 | 478 |
| South America | 0 | 0 | 126 | 126 | 128 |

1 / Imports consistent with maximum recent levels of consumption and food stocks.

2 / Major cereals, and the cereal equivalent of shortfalls in roots and tubers.

3 / Maximum absorbable needs not computed in 1984/85.

4 / Final 1985/86 assessment, May 1986 *World Food Needs and Availabilities report*.

FOOD AID AVAILABILITIES AND OUTLOOK

The Food and Agriculture Organization estimates shipments of cereal aid in the July 1986-June 1987 trade year to be about 10.2 million tons, down more than 15 percent from the 1984/85 peak of nearly 12.5 million tons. Of the total, the United States is estimated to provide more than 60 percent, followed by the European Community (EC) with about 15 percent, Canada with less than 10 percent, and Australia with less than 5 percent. Cereal aid shipments will again exceed the 10-million-ton target set by the 1974 World Food Conference.

At the end of 1986, pledges to the World Food Program's regular resources for the 1987-88 biennium amounted to 45 percent of the \$1.4-billion pledging target. Total pledges for the previous 1985-86 biennium were more than 80 percent of the \$1.35 billion target.

Contributions to the International Emergency Food Reserve (IEFR) in 1986 were more than 530,000 tons of cereals and about 25,000 tons of non-cereals, chiefly vegetable oils and powdered skim and whole milk. The United States was the leading donor, with most of its IEFR cereal aid going to Afghan refugees.

In late 1986, the Council of the European Communities passed a food aid regulation defining food aid objectives and attempting to improve the management and effectiveness of EC food aid. Objectives are severalfold, including those to promote the recipient country's food security and economic and social development, to improve nutrition, and to assist in emergencies. To achieve these ends, food aid is to be more fully integrated into the EC's overall development policies. Allocation criteria include the recipient countries' "basic food needs, per capita income and the existence of particularly impoverished groups, the balance of payments situation, and the economic and social impact and financial cost [of the aid]." Conditions are defined under which food aid commodities may be obtained, not only from EC stocks, but from a surplus region of the recipient country or from a third country for supply within the recipient country. Provision of food aid may be conditional on the implementation of development projects or other actions.

A Food Committee, composed of representatives of member states and chaired by a representative of the Commission, is created to improve management of EC food aid. It will help coordinate EC and member nations' food aid by serving as a forum in which information about food aid programs may be exchanged. The Commission representative shall propose actions to be taken and may set a deadline for Committee consideration. If the Committee disagrees with the Commission's proposal, the Commission will postpone action for 2 months while the Council considers the action.

ADDITIONAL FOOD NEEDS OF LOW-INCOME COUNTRIES

Commercial Capacity To Import Food

Several alternative methods are available to convert general financial indicators into measures of the low-income countries' capacity to import food. The calculation used in this study is based on estimates of each country's foreign exchange earnings, import bills, foreign exchange reserves and debt service, and historical commercial food import patterns and food import unit values. Estimates of a country's foreign exchange earnings were made on the basis of export trade forecasts and, in selected cases, other sources of earnings such as worker remittances and tourism. The foreign exchange earnings estimate was added to estimates of a country's foreign exchange reserves to arrive at total foreign exchange supplies. The total was then adjusted using historical and estimated import bills to maintain the country's historical reserves-to-imports ratio.

The adjusted foreign exchange availability estimate was reduced further by the country's debt-service obligations to arrive at a net foreign exchange availability. The proportion of this net foreign exchange availability allocated to commercial food imports in the base period was held constant and used to calculate the foreign exchange available in the forecast period for commercial food imports. The volume of imports that could be purchased is estimated using this final estimate of net foreign exchange availability and expected food import unit values.

Measures of Additional Food Needs--Conceptual Framework

The financial indicators noted above and the food data described below are used to generate two alternative measures of food needs in addition to estimated commercial import capacity. Countries must choose between making extraordinary commercial purchases and seeking food aid to fill this gap. However, extraordinarily large commercial imports, particularly in successive years, would be at the cost of other imports, including imports of development goods. In addition, a measure is computed of the maximum quantities of commodities which countries could feasibly import. Each measure highlights a different aspect of the food problem in the low-income countries and a different notion of the role aid might play in easing the problem. For a more detailed discussion, see the section entitled "Methodological Notes."

The first measure, termed "status quo," estimates the additional food needed to maintain per capita use of food staples at levels reported in recent years. Per capita food use is calculated as the mean of the most recent 4 years that do not deviate more than one standard deviation from the mean of the most recent 8 years. This per capita food use is called base-use in the following descriptions of tables and elsewhere in this report. The data years employed in calculations for this report are 1978/79 through 1985/86. No provision is made either for improving substandard diets, for reducing allocations to countries where

diets are relatively good, or for correcting problems related to the uneven distribution of food across or within countries. Because status quo estimates support a level of per capita availability that has been achieved in the past, in most cases they can be considered to be consistent with the capacity of countries to absorb food imports.

The second measure, termed "nutrition-based," estimates the additional food required to raise per capita caloric intake to the levels associated with FAO's recommended minimum diet. This measure is based on the notion that food aid might be utilized in a way consistent with nutritional need rather than to maintain a recent, possibly substandard, status quo. In this sense, the nutrition-based measure might be viewed as a maximum level of additional food need, but not necessarily consistent with a country's ability to absorb food imports.

The measure of food import feasibility called "maximum absorbable imports" provides one basis for assessing what maximum quantity of additional food might be imported toward meeting large nutrition-based food needs, or possibly for building stocks in a period of ample world food supplies. The implicit assumption is that the food delivery systems of many of the countries involved have been fully "loaded" by past high levels of consumption. In addition, the highest level of stocks maintained over the previous 8 years is assumed, in the absence of better information, to be the largest level that can currently be maintained. The estimate is intended to provide a crude measure of the amount of food that can be physically absorbed. This level may then be used to scale back nutrition-based additional food need estimates that may be beyond the physical limits of a country's transportation, distribution, and storage capabilities.

While the status quo and nutrition-based methods differ in the estimation of requirements, they have a common structure. In each, an estimate of every country's domestic supplies of food staples is subtracted from an estimate of staple food requirements to arrive at a quantity estimate of import requirements. Import requirements are then totaled for food groups, based on assumptions regarding their substitutability. An estimate of a country's capacity to commercially import food in each category is then subtracted from the import requirement to arrive at an estimate of additional food needs. Estimated import unit values for each food group are used to generate import requirements, and additional food needs estimates in both quantity and value terms.

Several factors affecting additional food needs in a country are not addressed in these estimates. First, food distribution problems--both geographical and across income or population groups--are overlooked by the use of national level food availability and country average food requirement measures. These can mask acute shortages in specific places within a country as well as uneven distribution of food across population

groups. However, measuring the unevenness of food distribution is extremely difficult, because data are not available. Acute problems of this nature are treated qualitatively in the country narratives.

Second, additional food needs are estimated without reference to a country's food and agriculture policies and current performance. Although these issues figure importantly in a country's choice between exceptional commercial food purchases and requesting concessional food imports, a comprehensive consideration of them is beyond the scope of this report.

Introduction to Regional and Country Narrative Tables

The following section reports on the food and financial situation and outlook for 69 countries in Africa, the Middle East, Asia, and Latin America. The materials summarize events during the 1985/86 local marketing year (generally July-June) and project food and financial conditions for 1986/87 and 1987/88.

Data shown in the tables must be interpreted with caution. Forecasts of food production, population, and financial conditions for 1986/87 and 1987/88 represent ERS's forecasts of what is likely to happen during those years. But, 1986/87 and 1987/88 estimates of all other items--stocks, use, import requirements, and additional needs--are not forecasts of what is likely to happen; they are targets derived using the status quo and nutrition assumptions summarized in the previous section, and explained in detail in the "Methodological Notes" section of this report. Additional food needs calculations are also subject to a number of adjustments detailed in the Methodology section.

In each of the regional and country tables, any quantity less than 500 tons and any value less than \$500,000 is shown as zero.

Tables entitled "[Region] basic food data"

These tables provide major cereal supply and utilization data and population for regions for 1980/81-1985/86 and for forecast years (1986/87-1987/88).

Tables entitled "[Region] cereal use, additional food needs to support consumption, and stock adjustment"

These tables deal only with 1986/87-1987/88 country estimates aggregated for the regions. The explanation for column headings is the same as for column headings in the country tables, as described below.

Tables Entitled "[Country] basic food data"

These tables provide food staple supply and utilization data for 1980/81-1985/86 and for forecast years (1986/87 and 1987/88). An explanation of each column heading follows:

1. Actual or forecast production--actual production for the individual staples for 1980/81-1985/86 and forecast production for 1986/87 and 1987/88.
2. Net imports--actual net imports during 1980/81-1985/86. Net import figures for forecast years are not supplied. Instead, estimated import requirements based on status quo and nutrition-based approaches are provided in the next set of tables.
3. Nonfeed use--actual human consumption, 1980/81-1985/86.
4. Feed use--actual feed use, 1980/81-1985/86 and targeted feed use for 1986/87 and 1987/88. Targeted feed use is calculated to maintain per capita feed use at base-use levels. The same base-use level of feed use is employed in the status quo and nutrition-based estimates of aid needs.
5. Beginning stocks--actual stocks for 1980/81-1985/86, where reliable stocks data are available. Initial calculations of status quo and nutrition-based import and aid needs are done by maintaining the ending stocks for 1985/86 (beginning stocks 1986/87) constant throughout the forecasting period. Import requirements for building food security stocks are calculated subsequently for the countries for which stock data are available.
6. Per capita total use--actual per capita human consumption and livestock feed use for 1980/81-1985/86.
7. Commodity coverage--the food staples included for each country.
8. Share of diet--each staple's share of total daily caloric intake, and the share of total daily caloric intake covered by the food staples analyzed. Data are drawn from the 1979-81 FAO Food Balance Sheets with adjustments made in some cases for differences in FAO or ERS estimates of feed use or more recent significant changes in a staple's share of the diet.

Tables Entitled "Import requirements for [Country]"

These tables deal only with 1986/87 and 1987/88 estimates. An explanation of each column heading follows:

1. Forecast domestic production--data are drawn from the "basic food data" tables.
2. Total use, status quo--total amount of a staple needed to maintain per capita human consumption at the base-use level and feed use at the targeted level.
3. Total use, nutrition-based--the amount of a staple needed to support FAO recommended minimum daily per capita caloric intake levels and targeted feed use.
4. Import requirements, quantity, status quo--the imports of a staple required to maintain per capita consumption, and also to achieve the targeted levels of feed use with no change in stocks, as shown in the basic food data table. These estimates are calculated for each staple by subtracting forecast domestic production from status quo-based total use.

Subtotals for each commodity group are calculated by summing the import requirements for individual commodities. Calculated surpluses (negative import requirements) for individual commodities within groups are subtracted from deficits in other commodities because foods are assumed to be substitutable within groups. Noncereals such as roots and tubers are converted to caloric wheat equivalents before being summed. Negative subtotals are shown as zeros because these calculated surpluses are assumed not to be substitutable elsewhere in the diet.

5. Import requirements, quantity, nutrition-based--the imports of a staple required to support recommended minimum per capita caloric intake, and targeted feed use, as no change in stocks is shown in the basic food data tables. These estimates are calculated by subtracting forecast domestic production from nutrition-based total use. Totals for each commodity group by year are computed as described in (4) above.
6. Import requirements, maximum--the largest quantity that could be managed if countries wished to take the greatest advantage of low grain prices to improve stocks or to improve on the nutritional status of the population.

Tables Entitled "Additional food needs for [Country], with stock adjustment and as constrained by maximum absorbable imports"

These tables provide calculations of cereal import requirements and food needs in excess of normal commercial imports resulting from consumption requirements and from estimates of cereal stock adjustments required for food security purposes. The estimated stock increment (quantity and value) is added to import requirements and additional food needs to support consumption to arrive at total import requirements and additional food needs. The stock increment is shown only when it results in altered total additional food needs (i.e. when not offset by negative additional food needs for consumption). For a discussion of how stock increment estimates are calculated, see "Methodological Notes" in the annual report.

1. Commercial import capacity--an estimate of the amount of food within each group that a country can afford to import commercially without reducing below historical levels the share of its available foreign exchange used for nonfood imports. Countries are assumed in forecast years to spend the same proportion of available foreign exchange on commercial food imports as in the base period. The measure is sensitive to historical and projected levels of foreign exchange holdings, total merchandise imports and exports, and debt service. The measure is provided in both quantity and value, using the same country-specific estimates of unit import costs as in the import requirements estimate.
2. Additional food needs, quantity--the estimated quantity of additional food needed in each commodity group to support either the status quo or nutrition-based use level and targeted stock and feed use levels. Negative needs are shown as zero.
3. Additional food needs, value--the estimated value of the additional food needed in each commodity group to maintain either status quo consumption or nutrition-based consumption and targeted stock and feed use levels.

Tables Entitled "Financial indicators for [Country], actual and projected"

These tables give historical data and forecasts for four key financial indicators: yearend international reserves, merchandise exports, merchandise imports, and debt-service obligations. All data are on a calendar year basis and are compiled from a variety of sources, including the World Bank, the International Monetary Fund, Chase Econometrics, country sources, and ERS estimates.

Africa

North Africa

North Africa basic food data

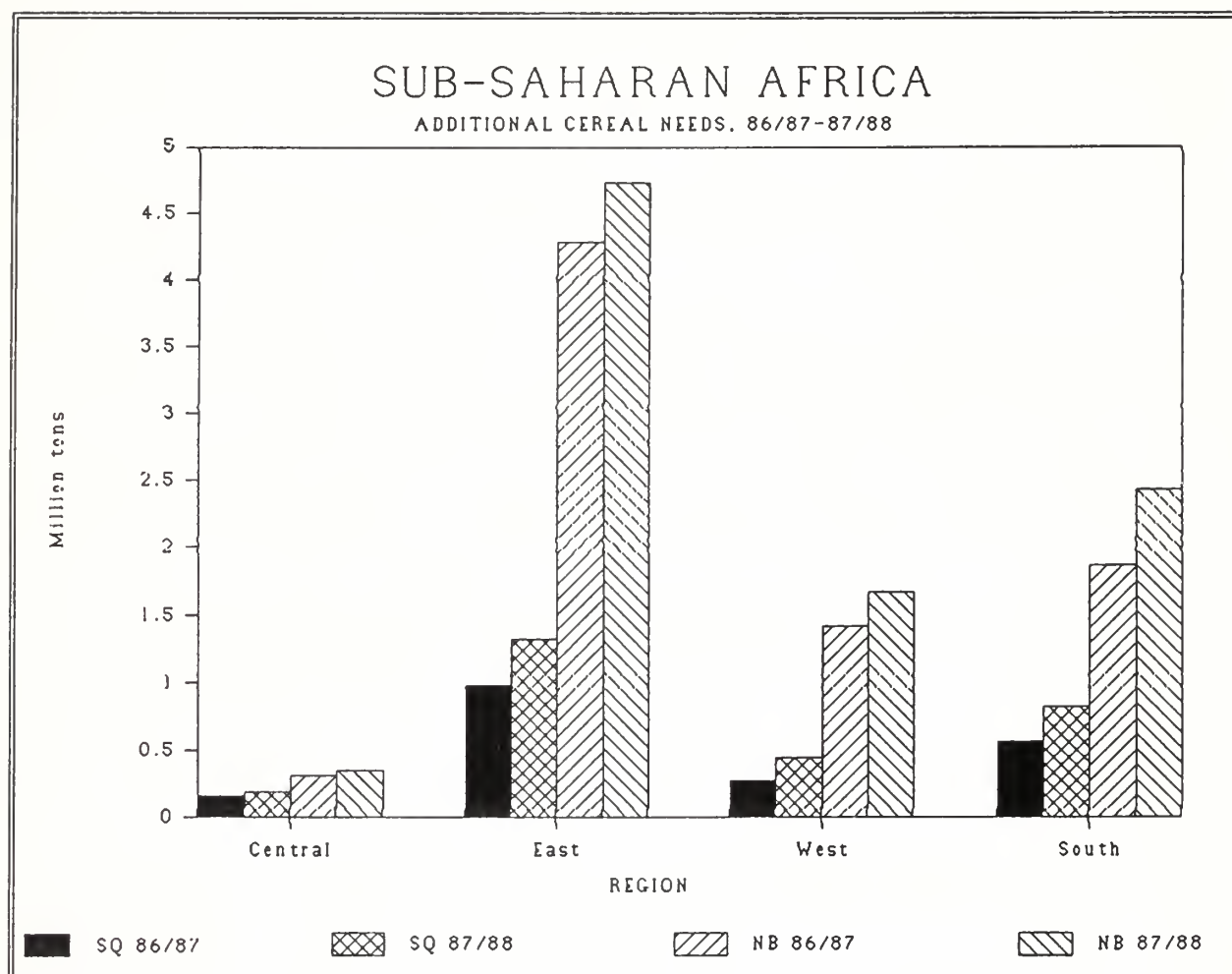
| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|-----------------|----------------------------|
| | ----- <u>1,000 tons</u> ----- | | | <u>Thousand</u> | <u>Kilos</u> |
| Major cereals | | | | | |
| 1980/81 | 12,893 | 3,336 | 9,303 | 69,169 | 322 |
| 1981/82 | 10,679 | 3,257 | 11,091 | 71,074 | 311 |
| 1982/83 | 13,734 | 2,953 | 9,351 | 72,972 | 323 |
| 1983/84 | 12,262 | 2,435 | 11,821 | 74,926 | 321 |
| 1984/85 | 12,470 | 2,367 | 12,770 | 76,901 | 325 |
| 1985/86 | 13,907 | 2,582 | 12,495 | 78,910 | 326 |
| 1986/87 | 14,466 | 3,242 | | 81,077 | |
| 1987/88 | 14,166 | 3,242 | | 83,303 | |

The absence of a column entry in any table means such entry is inapplicable.

North Africa cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|-------------------|-------------------|---------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition- based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 26,007 | 22,193 | 2,623 | 404 | 0 | 0 |
| 1987/88 | 26,718 | 22,696 | 1,830 | 282 | 0 | 0 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 795 | 124 | 88 | 10 |
| 1987/88 | | | 156 | 20 | 73 | 8 |
| Total | | | | | | |
| 1986/87 | | | 3,382 | 524 | 0 | 0 |
| 1987/88 | | | 1,913 | 295 | 0 | 0 |

Sub-Saharan Africa



West Africa

West Africa basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|-----------------|----------------------------|
| | ----- <u>1,000 tons</u> ----- | | | <u>Thousand</u> | <u>Kilos</u> |
| Major cereals | | | | | |
| 1980/81 | 8,103 | 446 | 2,100 | 67,516 | 152 |
| 1981/82 | 8,633 | 371 | 2,142 | 69,131 | 154 |
| 1982/83 | 8,219 | 510 | 2,233 | 70,941 | 149 |
| 1983/84 | 7,544 | 426 | 2,758 | 73,370 | 141 |
| 1984/85 | 7,364 | 430 | 2,559 | 75,809 | 132 |
| 1985/86 | 10,092 | 336 | 1,923 | 77,996 | 147 |
| 1986/87 | 10,299 | 848 | | 80,469 | |
| 1987/88 | 9,973 | 848 | | 82,851 | |

West Africa cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition-based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 16,483 | 18,309 | 275 | 47 | 1,416 | 264 |
| 1987/88 | 16,976 | 18,755 | 446 | 72 | 1,667 | 298 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 55 | 10 | 55 | 10 |
| 1987/88 | | | 58 | 9 | 58 | 9 |
| Total | | | | | | |
| 1986/87 | | | 332 | 56 | 1,479 | 275 |
| 1987/88 | | | 490 | 79 | 1,718 | 306 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 332 | 56 | 781 | 134 |
| 1987/88 | | | 490 | 79 | 910 | 154 |

Central Africa

Central Africa basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------|-------------------|-------------|-----------------|----------------------|
| | | <u>1,000 tons</u> | | <u>Thousand</u> | <u>Kilos</u> |
| Major cereals | | | | | |
| 1980/81 | 1,236 | 59 | 861 | 37,792 | 55 |
| 1981/82 | 1,241 | 60 | 829 | 38,757 | 53 |
| 1982/83 | 1,281 | 58 | 740 | 39,981 | 51 |
| 1983/84 | 1,292 | 51 | 666 | 41,006 | 49 |
| 1984/85 | 1,326 | 17 | 777 | 42,027 | 50 |
| 1985/86 | 1,373 | 33 | 705 | 43,198 | 48 |
| 1986/87 | 1,404 | 40 | | 44,387 | |
| 1987/88 | 1,462 | 40 | | 45,608 | |

Central Africa cereal use and additional food needs

| Commodity/year | Total use | | Additional needs | | | |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition-based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 8,708 | 8,850 | 156 | 26 | 312 | 51 |
| 1987/88 | 8,948 | 9,090 | 193 | 31 | 348 | 54 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 12 | 2 | 12 | 2 |
| 1987/88 | | | 8 | 1 | 8 | 1 |
| Total | | | | | | |
| 1986/87 | | | 167 | 28 | 324 | 53 |
| 1987/88 | | | 202 | 32 | 356 | 56 |

East Africa

The major changes in East Africa's additional food needs from the February update are the result of lower estimates of food production in Ethiopia for both the 1986/87 and the 1987/88 season. Somalia's production was revised upwards, leading to a decrease in additional food needs there. For the East African region, additional food needs are forecast at 1.32 million tons for 1987/88, up 350,000 tons from the February report.

A near-record sorghum crop is still forecast for Sudan, but civil strife continues in the southern half of the country, which will require some form of donor assistance to preposition food stocks before the rainy season begins.

East Africa basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 15,306 | 1,077 | 1,770 | 121,603 | 141 |
| 1981/82 | 16,824 | 1,027 | 1,667 | 125,707 | 144 |
| 1982/83 | 16,899 | 1,457 | 1,096 | 129,771 | 138 |
| 1983/84 | 15,634 | 1,555 | 1,837 | 133,559 | 138 |
| 1984/85 | 13,522 | 575 | 4,150 | 136,740 | 126 |
| 1985/86 | 18,773 | 1,019 | 2,263 | 142,244 | 145 |
| 1986/87 | 20,068 | 1,391 | | 146,713 | |
| 1987/88 | 19,127 | 1,391 | | 151,372 | |

East Africa cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|--------------------|-------------------|---------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition- based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 28,737 | 32,413 | 978 | 123 | 4,281 | 650 |
| 1987/88 | 29,666 | 33,222 | 1,320 | 200 | 4,733 | 718 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 451 | 72 | 451 | 72 |
| 1987/88 | | | 169 | 20 | 169 | 20 |
| Total | | | | | | |
| 1986/87 | | | 1,122 | 147 | 4,553 | 698 |
| 1987/88 | | | 1,367 | 207 | 4,853 | 733 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 1,122 | 147 | 3,020 | 476 |
| 1987/88 | | | 1,367 | 207 | 3,299 | 519 |

Ethiopia

Although weather conditions in 1986/87 improved from the previous year, the overall food production estimate was reduced to 5.8 million tons from the earlier forecast of 6.30 million. Similarly, the 1987/88 estimate of overall food production is 6.2 million tons rather than 6.6 tons. These changes increase additional food needs for Ethiopia from 212,000 tons to 611,000 tons for 1987/88.

Ethiopia basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|----------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| Major cereals | <u>1,000 tons</u> | | | | | <u>Kilos</u> | <u>Percent</u> | |
| 1980/81 | 5,559 | 695 | 226 | 5,847 | 213 | 155 | Wheat | 9.1 |
| 1981/82 | 5,324 | 420 | 303 | 5,745 | 172 | 147 | Corn | 9.8 |
| 1982/83 | 6,649 | 130 | 323 | 6,472 | 160 | 161 | Sorghum | 15.2 |
| 1983/84 | 5,749 | 470 | 531 | 6,478 | 187 | 158 | Millet | 2.0 |
| 1984/85 | 4,790 | 85 | 970 | 5,361 | 176 | 131 | Barley | 16.1 |
| 1985/86 | 5,245 | 308 | 1,075 | 6,056 | 122 | 141 | Teff | 15.5 |
| 1986/87 | 5,800 | 450 | | | | | Total | 67.7 |
| 1987/88 | 6,220 | 450 | | | | | | |

Import requirements for Ethiopia

| Commodity/year | Production | Total use | | Import requirements | | |
|----------------|------------|-------------------|---------------------|---------------------|---------------------|-----------------------|
| | | Status quo | Nutrition- based | Status quo | Nutrition- based | Maximum absorbable |
| | | <u>1,000 tons</u> | | | | |
| Major cereals | | | | | | |
| 1986/87 | 5,800 | 6,838 | 8,726 | 1,038 | 2,926 | 1,867 |
| 1987/88 | 6,220 | 7,023 | 8,987 | 803 | 2,767 | 1,648 |

Financial indicators for Ethiopia, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | <u>Million dollars</u> | | | | <u>Percent</u> | |
| 1980 | 573 | 871 | 34 | 75 | 539 | 9 |
| 1981 | 531 | 850 | 43 | 246 | 488 | 7 |
| 1982 | 579 | 915 | 55 | 178 | 525 | 5 |
| 1983 | 572 | 993 | 68 | 119 | 504 | 6 |
| 1984 | 627 | 1,090 | 84 | 41 | 543 | 4 |
| 1985 | 583 | 1,293 | 105 | 148 | 478 | |
| 1986 | 650 | 1,300 | 69 | 251 | 684 | 5 |
| 1987 | 675 | 1,300 | 72 | 251 | 706 | 5 |

Additional food needs to support consumption for Ethiopia, with stock adjustment

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|--------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 177 | 20 | 860 | 97 | 2,749 | 310 |
| 1987/88 | 192 | 21 | 611 | 66 | 2,576 | 277 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 48 | 5 | 48 | 5 |
| 1987/88 | | | 13 | 1 | 13 | 1 |
| Total | | | | | | |
| 1986/87 | | | 908 | 102 | 2,797 | 315 |
| 1987/88 | | | 625 | 67 | 2,589 | 278 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 908 | 102 | 1,689 | 190 |
| 1987/88 | | | 625 | 67 | 1,456 | 157 |

Somalia

Aggregate grain production in Somalia in 1986/87, at 646,000 tons, was higher than earlier estimates. While the forecast for 1987/88, at 611,000 tons, is less than that of 1986/87, it is still higher than the earlier forecast. These changes in production data lead to a decrease in additional food needs for 1987/88 from 96,000 tons to 49,000 tons. However, Somalia has very large carryover stocks from previous years' food imports (mostly food aid). These stocks were estimated at 600,000 tons in January 1987.

Somalia basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|-------------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | | | <u>1,000 tons</u> | | | <u>Kilos</u> | | <u>Percent</u> |
| Major cereals | | | | | | | | |
| 1980/81 | 264 | 0 | 422 | 675 | 11 | 112 | Wheat | 9.9 |
| 1981/82 | 370 | 0 | 394 | 752 | 12 | 114 | Rice | 9.2 |
| 1982/83 | 399 | 0 | 249 | 636 | 12 | 93 | Corn | 17.2 |
| 1983/84 | 358 | 0 | 330 | 676 | 12 | 96 | Sorghum | 14.3 |
| 1984/85 | 475 | 0 | 344 | 807 | 12 | 111 | Milk | 12.8 |
| 1985/86 | 554 | 0 | 215 | 757 | 12 | 101 | Total | 63.3 |
| 1986/87 | 646 | 0 | | | | | | |
| 1987/88 | 611 | 0 | | | | | | |
| Milk | | | | | | | | |
| 1980/81 | 539 | 0 | 13 | 552 | 0 | 90 | | |
| 1981/82 | 543 | 0 | 14 | 557 | 0 | 83 | | |
| 1982/83 | 547 | 0 | 11 | 558 | 0 | 80 | | |
| 1983/84 | 529 | 0 | 14 | 543 | 0 | 76 | | |
| 1984/85 | 530 | 0 | 14 | 544 | 0 | 74 | | |
| 1985/86 | 540 | 0 | 20 | 560 | 0 | 74 | | |
| 1986/87 | 560 | 0 | | | | | | |
| 1987/88 | 575 | 0 | | | | | | |

Import requirements for Somalia

| Commodity/year | Production | Total use | | Import requirements | | |
|----------------|------------|-------------------------------|-----------------|---------------------|-----------------|--------------------|
| | | Status quo | Nutrition-based | Status quo | Nutrition-based | Maximum absorbable |
| | | ----- <u>1,000 tons</u> ----- | | | | |
| Major cereals | | | | | | |
| 1986/87 | 646 | 831 | 1,130 | 185 | 484 | 246 |
| 1987/88 | 611 | 856 | 1,156 | 245 | 545 | 307 |
| Milk | | | | | | |
| 1986/87 | 560 | 563 | 622 | 3 | 62 | 37 |
| 1987/88 | 575 | 578 | 639 | 3 | 64 | 38 |

Financial indicators for Somalia, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------|--------------------------|--------------|------------------------|------------------------------------|-----------------------------|
| | | | | | Total | Share to major food imports |
| | | | | | ----- <u>Million dollars</u> ----- | |
| | | | | | | <u>Percent</u> |
| 1980 | 133 | 402 | 9 | 15 | 124 | 27 |
| 1981 | 175 | 371 | 47 | 31 | 128 | 53 |
| 1982 | 137 | 484 | 19 | 7 | 118 | 28 |
| 1983 | 100 | 450 | 25 | 9 | 75 | 66 |
| 1984 | 62 | 406 | 27 | 1 | 35 | 94 |
| 1985 | 93 | 394 | 57 | 3 | 36 | |
| 1986 | 108 | 407 | 29 | 2 | 76 | 63 |
| 1987 | 120 | 420 | 33 | 2 | 85 | 63 |

Additional food needs to support consumption for Somalia, with stock adjustment, and as constrained by maximum absorbable imports

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|--------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 148 | 26 | 17 | 3 | 336 | 59 |
| 1987/88 | 172 | 29 | 49 | 8 | 372 | 63 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | | 17 | 3 | 336 | 59 |
| 1987/88 | | | 49 | 8 | 372 | 63 |
| Milk | | | | | | |
| 1986/87 | 5 | 9 | 0 | 0 | 57 | 106 |
| 1987/88 | 5 | 10 | 0 | 0 | 59 | 108 |
| Total | | | | | | |
| 1986/87 | | 35 | | 3 | | 165 |
| 1987/88 | | 39 | | 8 | | 171 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 17 | 3 | 98 | 17 |
| 1987/88 | | | 49 | 8 | 135 | 23 |
| Milk | | | | | | |
| 1986/87 | | | 0 | 0 | 32 | 59 |
| 1987/88 | | | 0 | 0 | 33 | 60 |
| Total | | | | | | |
| 1986/87 | | | | 3 | | 76 |
| 1987/88 | | | | 8 | | 83 |

Southern Africa

Additional food needs in Southern Africa have increased by 310,000 tons from the February update. The food crisis in Mozambique continues because of drought and civil strife. Reduced production forecasts led to an increase in additional food needs for Mozambique of nearly 195,000 tons from the February report.

At the same time a severe drought has affected all of Zimbabwe and parts of Zambia, leading to a reduction in forecast corn production for both countries. Zimbabwe's cereal production will be reduced by at least 30 percent and that of Zambia by at least 20 percent. While there are sufficient stocks in Zimbabwe to meet corn needs, wheat imports will be needed. Hence, both Zimbabwe and Zambia show an increase in additional food needs due to the drought.

Southern Africa basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 6,273 | 302 | 1,598 | 44,064 | 178 |
| 1981/82 | 7,860 | 317 | 1,260 | 45,326 | 178 |
| 1982/83 | 6,600 | 1,369 | 891 | 46,650 | 162 |
| 1983/84 | 5,567 | 1,321 | 1,119 | 48,082 | 160 |
| 1984/85 | 6,164 | 327 | 1,565 | 49,432 | 151 |
| 1985/86 | 8,329 | 609 | 1,006 | 50,926 | 161 |
| 1986/87 | 7,959 | 1,744 | | 52,402 | |
| 1987/88 | 6,592 | 1,744 | | 53,924 | |

Southern Africa cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|--------------------|------------|-----------------|------------------|------------|-----------------|------------|
| | Status quo | Nutrition-based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | 1,000 tons | 1,000 tons | 1,000 tons | Million \$ | 1,000 tons | Million \$ |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 9,996 | 11,636 | 566 | 82 | 1,859 | 265 |
| 1987/88 | 10,285 | 11,686 | 817 | 111 | 2,424 | 327 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 82 | 10 | 82 | 10 |
| 1987/88 | | | 46 | 6 | 46 | 6 |
| Total | | | | | | |
| 1986/87 | | | 566 | 82 | 1,945 | 276 |
| 1987/88 | | | 863 | 117 | 2,470 | 334 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 566 | 82 | 1,146 | 163 |
| 1987/88 | | | 863 | 117 | 1,727 | 232 |

Mozambique

The effects of guerilla warfare and poor weather are more severe than previously reported, with about 6 million people in need of food and other assistance, up from 4 million in February. The total population of Mozambique is 14.4 million.

In January, the weather turned hot and dry in southern Mozambique. It extended into the central area in February, stressing crops in the reproductive stage. In the north-central area, where weather was favorable, guerilla activity prevented normal plantings. Plantings are down sharply in much of the country due to insecurity and reduced input supplies including fuel. Lack of foreign exchange, disruption of transportation, and shortages of vehicles all contribute to the problem. The 1987 cereal harvest estimate has been reduced 25 percent from the

February report, to 431,000 tons. The 1986 production estimate was also reduced substantially. The Government revised official marketings from the 1986 harvest downwards to only 40,000 tons.

The estimate of 1987 export earnings has been lowered, reducing commercial import capacity. It is assumed that nearly one-half of available foreign exchange will be used for food imports.

The additional status quo food needs for 1987/88, at 662,000 tons, are up about 40 percent from the February report. On a nutritional basis, additional needs are up to 1.5 million tons, but constrained to 813,000 tons by absorptive capacity.

Mozambique basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|----------------|-------------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | ----- 1,000 tons ----- | | | ----- Kilos ----- | | | Percent | |
| Major cereals | | | | | | | | |
| 1980/81 | 538 | 0 | 409 | 947 | 0 | 78 | Wheat | 6.2 |
| 1981/82 | 605 | 0 | 370 | 975 | 0 | 79 | Rice | 5.8 |
| 1982/83 | 570 | 0 | 373 | 943 | 0 | 74 | Corn | 15.5 |
| 1983/84 | 372 | 0 | 468 | 840 | 0 | 64 | Sorghum | 5.6 |
| 1984/85 | 429 | 0 | 394 | 823 | 0 | 62 | Millet | 0.2 |
| 1985/86 | 513 | 0 | 376 | 889 | 0 | 65 | Cassava | 39.7 |
| 1986/87 | 493 | 0 | | | | | Total | 73.0 |
| 1987/88 | 431 | 0 | | | | | | |
| Roots | | | | | | | | |
| 1980/81 | 2,800 | 0 | 0 | 2,800 | 0 | 231 | | |
| 1981/82 | 2,850 | 0 | 0 | 2,850 | 0 | 230 | | |
| 1982/83 | 2,900 | 0 | 0 | 2,900 | 0 | 228 | | |
| 1983/84 | 2,300 | 0 | 0 | 2,300 | 0 | 177 | | |
| 1984/85 | 2,600 | 0 | 0 | 2,600 | 0 | 196 | | |
| 1985/86 | 2,800 | 0 | 0 | 2,800 | 0 | 205 | | |
| 1986/87 | 2,900 | 0 | | | | | | |
| 1987/88 | 2,900 | 0 | | | | | | |

Import requirements for Mozambique

| Commodity/year | Production | Total use | | Import requirements | | |
|-------------------|------------|-------------------|---------------------|---------------------|---------------------|-----------------------|
| | | Status quo | Nutrition- based | Status quo | Nutrition- based | Maximum absorbable |
| | | <u>1,000 tons</u> | | | | |
| Major cereals | | | | | | |
| 1986/87 | 493 | 1,041 | 1,342 | 548 | 849 | 678 |
| 1987/88 | 431 | 1,071 | 1,374 | 640 | 943 | 774 |
| Roots | | | | | | |
| 1986/87 | 2,900 | 3,142 | 4,474 | 242 | 1,574 | 346 |
| 1987/88 | 2,900 | 3,234 | 4,602 | 334 | 1,702 | 441 |
| Cereal equivalent | | | | | | |
| 1986/87 | 1,656 | 2,301 | 3,136 | 645 | 1,480 | 791 |
| 1987/88 | 1,594 | 2,368 | 3,219 | 774 | 1,625 | 925 |

Financial indicators for Mozambique, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|------------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | ----- <u>Million dollars</u> ----- | | | | <u>Percent</u> | |
| 1980 | 448 | 870 | 91 | 268 | 357 | 19 |
| 1981 | 452 | 918 | 214 | 206 | 238 | 12 |
| 1982 | 394 | 971 | 226 | 71 | 168 | 26 |
| 1983 | 292 | 797 | 189 | 60 | 103 | 28 |
| 1984 | 210 | 690 | 166 | 72 | 43 | 80 |
| 1985 | 184 | 610 | 120 | 25 | 64 | |
| 1986 | 205 | 749 | 127 | 25 | 47 | 45 |
| 1987 | 235 | 900 | 146 | 25 | 47 | 45 |

Additional food needs to support consumption for Mozambique, and as constrained by maximum absorbable imports

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-------------------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 106 | 15 | 538 | 77 | 1,374 | 196 |
| 1987/88 | 112 | 15 | 662 | 90 | 1,513 | 206 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | | 538 | 77 | 1,374 | 196 |
| 1987/88 | | | 662 | 90 | 1,513 | 206 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 538 | 77 | 685 | 98 |
| 1987/88 | | | 662 | 90 | 813 | 111 |

Zambia

Dry conditions in early 1987 affected crops in southern and eastern parts of Zambia. This will lead to a reduction of at least 20 percent from the earlier forecast. The lower production of cereals, especially corn, could lead to an additional food need of 69,000 tons in 1987/88, previously assessed at zero. As in Zimbabwe, the actual production estimates are still not final and could be lower. Furthermore, Zimbabwe and Zambia both market their corn through marketing boards and the level of deliveries from farmers to the boards is uncertain and dependent on production levels.

Zambia basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|-------------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| Major cereals | | | | | | | | |
| | | | <u>1,000 tons</u> | | | <u>Kilos</u> | | <u>Percent</u> |
| 1980/81 | 711 | 56 | 381 | 1,096 | 30 | 195 | Wheat | 9.0 |
| 1981/82 | 1,023 | 22 | 220 | 1,199 | 30 | 206 | Rice | 0.5 |
| 1982/83 | 752 | 36 | 248 | 969 | 40 | 164 | Corn | 58.5 |
| 1983/84 | 962 | 27 | 205 | 1,139 | 35 | 184 | Total | 68.0 |
| 1984/85 | 891 | 24 | 154 | 1,015 | 35 | 159 | | |
| 1985/86 | 1,097 | 19 | 157 | 1,215 | 35 | 182 | | |
| 1986/87 | 1,163 | 23 | | | | | | |
| 1987/88 | 989 | 23 | | | | | | |

Import requirements for Zambia

| Commodity/year | Production | Total use | | Import requirements | | |
|----------------|------------|------------|-----------------|---------------------|-----------------|--------------------|
| | | Status quo | Nutrition-based | Status quo | Nutrition-based | Maximum absorbable |
| Major cereals | | | | | | |
| 1986/87 | 1,163 | 1,286 | 1,669 | 123 | 506 | 510 |
| 1987/88 | 989 | 1,327 | 1,678 | 338 | 689 | 731 |

Financial indicators for Zambia, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | <u>Million dollars</u> | | | | <u>Percent</u> | |
| 1980 | 1,457 | 1,114 | 295 | 78 | 1,162 | 8 |
| 1981 | 996 | 1,065 | 294 | 39 | 702 | 4 |
| 1982 | 942 | 1,004 | 176 | 42 | 766 | 8 |
| 1983 | 923 | 711 | 123 | 55 | 800 | 4 |
| 1984 | 893 | 612 | 117 | 54 | 776 | 8 |
| 1985 | 788 | 513 | 86 | 200 | 702 | |
| 1986 | 712 | 600 | 133 | 32 | 537 | 7 |
| 1987 | 758 | 650 | 141 | 32 | 568 | 7 |

Additional food needs to support consumption for Zambia, with stock adjustment

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-------------------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 242 | 30 | 0 | 0 | 264 | 33 |
| 1987/88 | 269 | 32 | 69 | 8 | 420 | 50 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 86 | 11 | 86 | 11 |
| 1987/88 | | | 3 | 0 | 3 | 0 |
| Total | | | | | | |
| 1986/87 | | | 0 | 0 | 350 | 43 |
| 1987/88 | | | 73 | 9 | 423 | 50 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 0 | 0 | 268 | 33 |
| 1987/88 | | | 73 | 9 | 423 | 50 |

Zimbabwe

Zimbabwe has experienced dry and very hot weather in the early months of 1987, which has led to drought conditions in many parts of the country. This has affected production of all major crops and initial estimates are that cereal production will be reduced by at least 30 percent. The effects of the drought lead to a change in the additional food needs from 0 to 36,000 tons. Zimbabwe, however, has large domestic corn stocks that could be used to meet domestic food needs. Zimbabwe also faces a foreign exchange shortage due to debt repayments coming due in 1987 and a commitment by the Government to meet its debt service payments. The foreign exchange shortage could affect the availability of agricultural inputs for the next season.

Zimbabwe basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|----------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | ----- <u>1,000 tons</u> ----- | | | | | <u>Kilos</u> | <u>Percent</u> | |
| Major cereals | | | | | | | | |
| 1980/81 | 2,046 | 246 | 7 | 1,704 | 300 | 273 | Corn | 46.6 |
| 1981/82 | 3,253 | 295 | (288) | 1,577 | 350 | 253 | Wheat | 8.6 |
| 1982/83 | 2,196 | 1,333 | (464) | 1,521 | 350 | 238 | Sorghum | 2.6 |
| 1983/84 | 1,160 | 1,194 | (187) | 1,624 | 300 | 236 | Millet | 6.2 |
| 1984/85 | 1,695 | 243 | 379 | 1,467 | 310 | 210 | Total | 63.9 |
| 1985/86 | 3,493 | 540 | (164) | 1,883 | 300 | 252 | | |
| 1986/87 | 3,118 | 1,686 | | | | | | |
| 1987/88 | 1,930 | 1,686 | | | | | | |

Import requirements for Zimbabwe

| Commodity/year | Production | Total use | | Import requirements | | |
|----------------|------------|-------------------------------|-----------------|---------------------|-----------------|--------------------|
| | | Status quo | Nutrition-based | Status quo | Nutrition-based | Maximum absorbable |
| | | ----- <u>1,000 tons</u> ----- | | | | |
| Major cereals | | | | | | |
| 1986/87 | 3,118 | 2,178 | 2,625 | (940) | (493) | (688) |
| 1987/88 | 1,930 | 2,233 | 2,462 | 303 | 532 | 561 |

Financial indicators for Zimbabwe, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|------------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | ----- <u>Million dollars</u> ----- | | | | <u>Percent</u> | |
| 1980 | 1,446 | 1,339 | 44 | 214 | 1,401 | 2 |
| 1981 | 1,451 | 1,534 | 70 | 170 | 1,381 | 1 |
| 1982 | 1,312 | 1,472 | 140 | 140 | 1,173 | 1 |
| 1983 | 1,154 | 1,070 | 441 | 75 | 713 | 5 |
| 1984 | 1,174 | 989 | 272 | 45 | 902 | 8 |
| 1985 | 1,133 | 920 | 326 | 93 | 807 | |
| 1986 | 1,300 | 975 | 250 | 106 | 1,079 | 5 |
| 1987 | 1,325 | 1,000 | 255 | 106 | 1,097 | 5 |

Additional food needs to support consumption for Zimbabwe, with stock adjustment

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|---|----------------------------|-------|------------|-------|-----------------|-------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| <u>1,000 tons</u> <u>Million \$</u> <u>1,000 tons</u> <u>Million \$</u> <u>1,000 tons</u> <u>Million \$</u> | | | | | | |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 251 | 35 | 0 | 0 | 0 | 0 |
| 1987/88 | 268 | 36 | 36 | 5 | 264 | 35 |
| Stock adjustment | | | | | | |
| 1986/87 | | | (4) | (1) | (4) | (1) |
| 1987/88 | | | 43 | 6 | 43 | 6 |
| Total | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 78 | 10 | 307 | 41 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 78 | 10 | 293 | 39 |

The Middle East

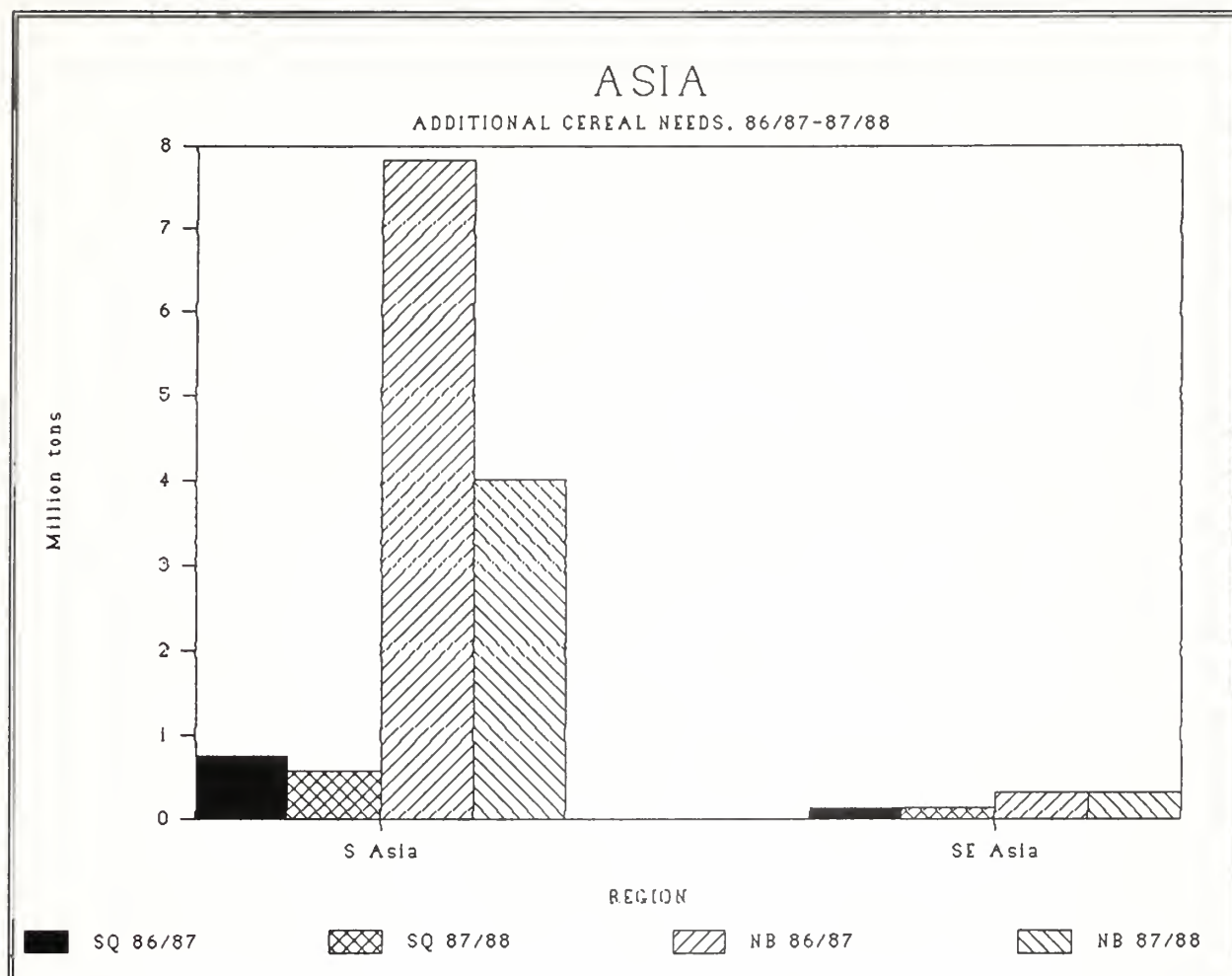
Middle East basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 956 | 249 | 1,105 | 9,964 | 215 |
| 1981/82 | 945 | 170 | 1,322 | 10,135 | 223 |
| 1982/83 | 880 | 173 | 1,426 | 10,316 | 221 |
| 1983/84 | 488 | 203 | 1,441 | 10,514 | 192 |
| 1984/85 | 670 | 116 | 1,672 | 10,737 | 217 |
| 1985/86 | 813 | 131 | 1,674 | 11,001 | 226 |
| 1986/87 | 844 | 132 | | 11,225 | |
| 1987/88 | 874 | 132 | | 11,454 | |

Middle East cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|-------------------|---------------|---------------------|------------------|------------|-----------------|------------|
| | Status quo | Nutrition- based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | 1,000 tons | 1,000 tons | 1,000 tons | Million \$ | 1,000 tons | Million \$ |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 2,456 | 2,280 | 650 | 94 | 473 | 68 |
| 1987/88 | 2,505 | 2,327 | 643 | 88 | 465 | 64 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 88 | 13 | 88 | 13 |
| 1987/88 | | | 37 | 6 | 37 | 6 |
| Total | | | | | | |
| 1986/87 | | | 738 | 106 | 562 | 81 |
| 1987/88 | | | 680 | 94 | 502 | 70 |

Asia



South Asia

Food production estimates for the region for 1986/87 are not significantly different from those in the previous assessment. In Afghanistan, recently released official data tend to support earlier assessments that there has been a gradual decline in per capita food grain supplies since the 1979 Soviet incursion, and also indicate a small decline in production in 1986/87 because of dry weather. Bangladesh's record 1986/87 food grain harvest is now estimated to be even larger than earlier forecasts, driven primarily by a bumper aman (main) rice crop. Estimates of 1986/87 production shortfalls in Nepal and Sri Lanka are unchanged from the previous assessment. The food grain situation in both India and Pakistan continues to be characterized by large surpluses of wheat and rice, even though Indian coarse grain harvests were damaged for the third consecutive year by dry weather. The region's food grain production outlook for 1987/88 hinges on the performance of the 1987 monsoon during June-September. Although it now appears likely that continued dry weather will damage Sri Lanka's 1987/88 rice crop,

projections for the remainder of the region assume average rainfall and indicate sustained growth in wheat and rice output and a recovery in coarse grain production in India.

Edible oil production estimates for 1986/87 for India and Sri Lanka are unchanged from the previous assessment, but record output is now expected in Pakistan based on another large increase in production of cotton and cottonseed. Assuming an average 1987 monsoon, projections indicate roughly a 9-percent increase in the region's edible oil output in 1987/88. In 1987/88, oilseed production gains are expected to be primarily in India, assuming more normal weather in rainfed regions as well as further gains in planted area because of high oilseed prices. Record or near-record harvests of pulse crops are still estimated in Pakistan and India in 1986/87, and further moderate gains are projected for 1987/88 assuming average rainfall.

Status quo cereal import needs to support consumption are now estimated at 3.0 million tons for 1986/87, down about 12 percent from the previous assessment. Larger food grain production estimates in Bangladesh and data revisions in Afghanistan account for the decline. The same factors account for a small drop in nutrition-based cereal import needs to 16.4 million tons. India and Bangladesh, because of their large populations, account for the bulk of nutrition-based import needs, while the most severe per capita nutritional gaps are in Bangladesh and Nepal. Current production projections for 1987/88 indicate that status quo and nutrition-based import needs will fall to about 2.6 million tons and 12.8 million tons, respectively. For vegetable oils, both status quo and nutrition-based import needs for 1986/87 (1.9 million tons and 1.7 million tons, respectively) are near the previous assessments. Edible oil import needs are projected to drop in 1987/88, assuming average rainfall in key producing areas of India. Pulse import needs for both 1986/87 and 1987/88 are confined to India and are higher than previous estimates because of historical data revisions.

The balance of payments situation for countries in the region for 1986/87 and 1987/88 remains largely consistent with earlier forecasts. In general, the capacity to import food and other commodities on commercial terms is being constrained by a combination of weak growth in merchandise exports, slowing remittances from workers employed in the Middle East, larger import bills for industrial raw materials, capital equipment, and technology, and steadily rising foreign debt service payments. These developments are being offset in varying degrees by lower prices for some imported commodities, particularly petroleum and food. While India and Pakistan are likely to have sufficient commercial import capacity to purchase their proportionately small import requirements, Bangladesh, Nepal, and Sri Lanka are faced with a weakening capacity to import. Rising debt service payments stemming from large commercial food grain purchases in 1984 and 1985 now strain Bangladesh's balance of payments, and the standard commercial import capacity calculations shown in

this report probably overestimate actual capacity. Nepal's very limited ability to earn foreign exchange, coupled with high transport and distribution costs for food imports, result in negligible commercial food import capacity. Sri Lanka's balance of payments position is being steadily eroded by poor export performance and rapid growth in debt service obligations.

Additional cereal needs for the region in 1986/87 are now estimated at .8 million tons according to the status quo approach and 4.5 million tons according to the maximum absorbable nutrition-based calculation, compared with the previous assessments of 1.3 million tons and 3.4 million tons, respectively. Larger estimates of food grain harvests in Bangladesh account for the smaller status quo estimate, while a decline in commercial import capacity and higher import needs for other foods in India have accounted for most of the increase in nutrition-based additional needs. However, as reported previously, the standard calculation procedure probably substantially overstates Bangladesh's commercial import capacity and, using an alternative import capacity estimate, the region's 1986/87 additional status quo and nutrition-based cereal needs might be better assessed at 1.3 million tons and 5.0 million tons, respectively. Bangladesh, Afghanistan, Nepal, and Sri Lanka account for all of the status quo additional needs, while all countries in the region except Pakistan have nutrition-based additional needs.

In 1987/88, status quo and nutrition-based additional cereal needs are projected to fall to .7 million tons and 1.4 million tons, respectively, using the standard import capacity calculation for Bangladesh, and 1.1 million tons and 2.0 million tons respectively, using the alternate calculation. The likelihood of a recovery in Indian coarse grain harvests in 1987/88, assuming average rainfall, accounts for the bulk of the decline in estimated nutrition-based additional needs in 1987/88, more than offsetting projected higher needs in Afghanistan and Sri Lanka. Both status quo and nutrition-based additional needs for vegetable oils and pulses in the region are estimated at zero for 1986/87 and 1987/88.

South Asia basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 151,856 | 19,850 | 399 | 906,091 | 170.2 |
| 1981/82 | 159,740 | 17,933 | 3,158 | 926,031 | 173.9 |
| 1982/83 | 151,409 | 19,792 | 5,788 | 947,382 | 163.7 |
| 1983/84 | 178,294 | 21,937 | 5,050 | 969,559 | 182.1 |
| 1984/85 | 175,437 | 28,747 | 3,423 | 991,723 | 175.0 |
| 1985/86 | 175,111 | 34,062 | 2,133 | 1,013,540 | 175.3 |
| 1986/87 | 179,095 | 33,594 | | 1,035,779 | |
| 1987/88 | 187,320 | 33,594 | | 1,058,247 | |

South Asia cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition-based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 180,089 | 195,025 | 764 | 119 | 7,833 | 1,160 |
| 1987/88 | 183,993 | 199,770 | 583 | 83 | 4,024 | 575 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 19 | 3 | (9) | (0) |
| 1987/88 | | | 71 | 9 | 94 | 12 |
| Total | | | | | | |
| 1986/87 | | | 782 | 122 | 7,824 | 1,160 |
| 1987/88 | | | 654 | 92 | 4,118 | 587 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 782 | 122 | 4,501 | 668 |
| 1987/88 | | | 654 | 92 | 1,405 | 201 |

Afghanistan

Recently released data from Afghanistan's Central Statistical Office have permitted revision of current and historical food grain production and trade estimates. These data tend to support the previous assessment that food grain production has stabilized at a level somewhat below what prevailed prior to the 1979 Soviet incursion. Together with declining imports, stagnating domestic production has led to a gradual decline in per capita food grain availability. The 1986/87 wheat harvest is reported to be down about 5 percent because of dry weather and poor irrigation water supplies. However, data collection capabilities have been severely impaired by economic disruptions and warfare, and available data may significantly misrepresent the actual food supply situation in the country. The data revisions have resulted in lower estimates of historical per capita food grain consumption and estimated status quo import needs. Status quo cereal import needs for 1986/87 are now estimated at 389,000 tons, 30 percent below the previous assessment. Nutrition-based cereal import needs are now estimated at 445,000 tons in 1986/87, up 80 percent from the previous assessment, reflecting a wider gap between estimated historical per capita supplies and what is required to meet minimum nutritional needs.

Data revisions also indicate some deterioration in Afghanistan's ability to import commercially since the last assessment, as economic disruptions continue to weaken export performance. Commercial import capacity is estimated at about 130,000 tons of cereals in 1986/87, down 10 percent from the previous estimate. Estimated status quo additional food needs for 1986/87 are down about 40 percent from the previous assessment to 260,000 tons because of the lower estimate of status quo per capita

consumption. Nutrition-based additional needs, however, are up 200 percent from the earlier assessment to 316,000 tons, reflecting a wider gap between per capita supplies and minimum nutritional needs. Current forecasts for 1987/88 anticipate that there will be further gradual erosion of food grain production capacity, leading to higher cereal import requirements. In addition, little or no improvement is likely in export performance or foreign exchange availability. Status quo additional food needs are projected to rise 13 percent to 295,000 tons, while nutrition-based needs rise 10 percent to 348,000 tons.

Afghanistan basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|-------------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | | | <u>1,000 tons</u> | | | <u>Kilos</u> | | <u>Percent</u> |
| Major cereals | | | | | | | | |
| 1980/81 | 3,847 | 0 | 334 | 4,181 | 0 | 274 | Wheat | 48.8 |
| 1981/82 | 3,957 | 0 | 250 | 4,207 | 0 | 287 | Rice | 7.3 |
| 1982/83 | 3,967 | 0 | 276 | 4,243 | 0 | 299 | Corn | 16.2 |
| 1983/84 | 4,045 | 0 | 181 | 4,226 | 0 | 298 | Total | 72.3 |
| 1984/85 | 3,969 | 0 | 183 | 4,152 | 0 | 287 | | |
| 1985/86 | 3,961 | 0 | 160 | 4,121 | 0 | 279 | | |
| 1986/87 | 3,860 | 0 | | | | | | |
| 1987/88 | 3,910 | 0 | | | | | | |

Import requirements for Afghanistan

| Commodity/year | Production | Total use | | Import requirements | | |
|----------------|------------|---------------|---------------------|---------------------|---------------------|-----------------------|
| | | Status quo | Nutrition- based | Status quo | Nutrition- based | Maximum absorbable |
| | | | <u>1,000 tons</u> | | | |
| Major cereals | | | | | | |
| 1986/87 | 3,860 | 4,249 | 4,305 | 389 | 445 | 738 |
| 1987/88 | 3,910 | 4,338 | 4,391 | 428 | 481 | 782 |

Financial indicators for Afghanistan, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | | | | | <u>Million dollars</u> | <u>Percent</u> |
| 1980 | 705 | 889 | 53 | 341 | 490 | 13 |
| 1981 | 883 | 1,031 | 118 | 281 | 652 | 4 |
| 1982 | 744 | 974 | 134 | 238 | 765 | 3 |
| 1983 | 629 | 925 | 120 | 206 | 610 | 5 |
| 1984 | 648 | 1,315 | 126 | 243 | 509 | 4 |
| 1985 | 628 | 1,059 | 76 | 307 | 552 | |
| 1986 | 630 | 1,200 | 86 | 300 | 565 | 4 |
| 1987 | 650 | 1,250 | 91 | 290 | 558 | 4 |

Additional food needs to support consumption for Afghanistan

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| 1986/87 | 129 | 21 | 260 | 43 | 316 | 52 |
| 1987/88 | 133 | 21 | 295 | 47 | 348 | 55 |

Bangladesh

Food grain production is now estimated at a record 17.2 million tons in 1986/87, more than 6 percent above last year and about 1 percent higher than the previous estimate. Good weather contributed to a bumper aman (main) rice crop, and the 1987 wheat harvest is now expected to be somewhat higher than the earlier forecast of 1.3 million tons. Government stocks of wheat and rice entering the 1986/87 marketing year were 976,000 tons, compared with the informal government target of about 1.2 million tons. Dry weather in rapeseed producing areas has resulted in somewhat lower estimate of domestic edible oil production in 1986/87, but Bangladesh now depends on imports for more than 75 percent of its oil supplies and stocks of imported oils are reported to be high.

Status quo and nutrition-based cereal import requirements are now estimated at 1.6 million tons and 4.8 million tons, respectively, slightly below the earlier assessments because of the upward revision of cereal production estimates. Estimated import needs for stockbuilding are 75,000 tons, about the same as the previous assessment. Projections of food grain production and import needs for 1987/88 continue to be subject to significant error because a key determinant of actual production will be the performance of the 1987 monsoon during July-September. Assuming average weather and continued steady improvement in the application of high-yielding technology, food grain production is projected to rise 4 percent in 1987/88, contributing to lower status quo and nutrition-based import needs of 1.2 million tons and 4.6 million tons, respectively.

Revisions in historical and projected financial estimates, and particularly commercial import and debt service data, have resulted in a marginally higher estimate of commercial food import capacity in 1986/87 according to the standard calculation procedure. Despite continued weak export performance that is constraining imports and contributing to higher debt obligations, the standard import capacity calculation continues to be inflated by the abnormally large outlays for emergency commercial food grain imports during 1983, and particularly, 1984. Debt obligations incurred in these purchases will be a key source of strain in Bangladesh's balance of payments for the next several years, and continued allocation of such a large share of available foreign exchange to commercial purchases may not be

advisable. Commercial import capacity may be better assessed by omitting 1984 from the base period for this calculation, a procedure that results in lower commercial cereal import capacity estimates of about \$110 million (750,000 tons) in 1986/87 and \$120 million (850,000 tons) in 1987/88. These alternative calculations are about 40 percent lower than the standard calculations and may be the basis of a more meaningful assessment of additional food needs. Using the standard calculation of commercial import capacity, status quo additional cereal needs for consumption and stock building are now estimated at 211,000 tons in 1986/87, down more than 50 percent from the prior assessment. Estimated maximum absorbable nutrition-based additional cereal needs are 1.2 million tons using the standard import capacity calculation, down 20 percent from the previous estimate. However, additional cereal needs may be better assessed using the alternate commercial import capacity estimate, which places 1986/87 status quo needs at 750,000 tons, and maximum absorbable nutrition-based needs at 1.7 million tons. Additional food needs are projected to decline in 1987/88, with status quo needs falling to zero and maximum absorbable nutrition-based needs to 570,000 tons, using the standard import capacity calculation. Using the alternate import capacity calculation, projected status quo needs are about 450,000 tons, and nutrition-based needs about 1.2 million tons.

Bangladesh basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|-------------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | | | <u>1,000 tons</u> | | | <u>Kilos</u> | | <u>Percent</u> |
| Major cereals | | | | | | | | |
| 1980/81 | 14,975 | 787 | 1,077 | 15,587 | 0 | 177 | Wheat | 8.8 |
| 1981/82 | 14,598 | 1,252 | 1,235 | 16,470 | 0 | 182 | Rice | 76.3 |
| 1982/83 | 15,311 | 615 | 1,817 | 17,117 | 0 | 183 | Vegetable | |
| 1983/84 | 15,710 | 626 | 2,056 | 17,592 | 0 | 183 | oil | 2.2 |
| 1984/85 | 16,084 | 800 | 2,588 | 18,455 | 0 | 188 | Total | 87.3 |
| 1985/86 | 16,141 | 1,017 | 1,203 | 17,385 | 0 | 172 | | |
| 1986/87 | 17,154 | 976 | | | | | | |
| 1987/88 | 17,900 | 976 | | | | | | |
| Vegetable oils | | | | | | | | |
| 1980/81 | 56 | 18 | 125 | 146 | 0 | 2 | | |
| 1981/82 | 54 | 53 | 133 | 189 | 0 | 2 | | |
| 1982/83 | 55 | 51 | 116 | 159 | 0 | 2 | | |
| 1983/84 | 57 | 63 | 133 | 174 | 0 | 2 | | |
| 1984/85 | 57 | 79 | 206 | 209 | 0 | 2 | | |
| 1985/86 | 56 | 133 | 301 | 343 | 0 | 3 | | |
| 1986/87 | 54 | 147 | | | | | | |
| 1987/88 | 57 | 147 | | | | | | |

Import requirements for Bangladesh

| Commodity/year | Production | Total use | | Import requirements | | |
|----------------|------------|-------------------|-----------------|---------------------|-----------------|--------------------|
| | | Status quo | Nutrition-based | Status quo | Nutrition-based | Maximum absorbable |
| | | <u>1,000 tons</u> | | | | |
| Major cereals | | | | | | |
| 1986/87 | 17,154 | 18,729 | 21,927 | 1,575 | 4,773 | 2,516 |
| 1987/88 | 17,900 | 19,146 | 22,453 | 1,246 | 4,553 | 2,202 |
| Vegetable oils | | | | | | |
| 1986/87 | 54 | 200 | 204 | 146 | 150 | 298 |
| 1987/88 | 57 | 204 | 209 | 147 | 152 | 302 |

Financial indicators for Bangladesh, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | <u>Million dollars</u> | | | | <u>Percent</u> | |
| 1980 | 1,364 | 2,795 | 125 | 249 | 1,239 | 13 |
| 1981 | 1,294 | 2,818 | 214 | 122 | 1,080 | 16 |
| 1982 | 1,570 | 2,589 | 263 | 358 | 1,307 | 20 |
| 1983 | 1,717 | 2,665 | 280 | 539 | 1,437 | 17 |
| 1984 | 1,697 | 3,011 | 414 | 395 | 1,283 | 29 |
| 1985 | 1,665 | 2,749 | 468 | 476 | 1,197 | |
| 1986 | 1,750 | 2,882 | 525 | 618 | 1,380 | 22 |
| 1987 | 1,925 | 3,170 | 550 | 650 | 1,516 | 22 |

Additional food needs to support consumption for Bangladesh, with stock adjustment and as constrained by maximum absorbable imports

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|--------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 1,286 | 188 | 136 | 20 | 3,346 | 489 |
| 1987/88 | 1,480 | 207 | 0 | 0 | 2,898 | 404 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 75 | 11 | 75 | 11 |
| 1987/88 | | | 0 | 0 | 23 | 3 |
| Total | | | | | | |
| 1986/87 | | | 211 | 31 | 3,422 | 500 |
| 1987/88 | | | 0 | 0 | 2,921 | 408 |
| Vegetable oils | | | | | | |
| 1986/87 | 201 | 80 | 0 | 0 | 0 | 0 |
| 1987/88 | 210 | 88 | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | 268 | | 31 | | 500 |
| 1987/88 | | 295 | | 0 | | 408 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 211 | 31 | 1,164 | 170 |
| 1987/88 | | | 0 | 0 | 570 | 80 |
| Vegetable oils | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | | | 31 | | 170 |
| 1987/88 | | | | 0 | | 80 |

Sri Lanka

Sri Lanka has reduced its rice imports over the last decade by substantially increasing rice production. No wheat is grown, but wheat imports have also decreased because of increasing local rice supplies. Rice imports are now small, but wheat and rice imports still account for about one-third of the cereal supply. Although irrigation is available to about two-thirds of both the Maha (main) and Yala (secondary) rice crops, weather has an important influence on the area harvested and the yield of rice. In 1986, the March-harvested Maha crop was affected by floods. The Yala crop suffered dry weather during transplanting and the early part of the growing season, but later recovered substantially. In 1987, the Maha crop has suffered from very dry conditions, while at this time only normal weather can be assumed for the Yala crop. Thus, rice production is expected to decline from 1.8 million tons in 1985 to 1.7 in 1986 and 1.6 in 1987.

Coconut production remained high in 1986, but falling prices cut into export value significantly. Moreover, Sri Lanka's merchandise trade deficit probably worsened in 1986 and is expected to continue worsening in 1987, and its debt service may reach the unprecedented level of almost 30 percent of export earnings. Remittances comprise more than 15 percent of Sri Lanka's foreign exchange earnings. With the slowdown in Middle East oil production, employment there and remittances to Sri Lanka are likely to stagnate. Thus, reserves will probably decline.

The status quo estimate of additional food needs is 162,000 tons for 1986/87, down about 14 percent from the previous assessment. An estimated 57,000 tons of this additional need can be met by drawing down food stocks, leaving an unmet additional need of 102,000 tons. The nutrition-based additional need is now estimated at 95,000 tons, including the stock adjustment. For 1987/88 status quo additional food needs are projected to rise to 288,000 tons, and an additional 70,000 tons may be needed for rebuilding stocks. The 1987/88 nutrition-based needs are projected to rise to 341,000 tons, including possible stock rebuilding needs. However, it is unclear at this point to what extent Sri Lanka would be able to cope with consecutive food grain production setbacks through commercial imports and a further drawdown of stocks. The Government's stock position entering the 1987/88 marketing year, as well as balance of payments developments, will be better assessed in the August report.

Sri Lanka basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|-------------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | | | <u>1,000 tons</u> | | | <u>Kilos</u> | | <u>Percent</u> |
| Major cereals | | | | | | | | |
| 1980/81 | 1,450 | 254 | 692 | 2,198 | 0 | 146 | Wheat | 13.8 |
| 1981/82 | 1,469 | 198 | 663 | 2,142 | 0 | 139 | Rice | 42.0 |
| 1982/83 | 1,466 | 188 | 789 | 2,226 | 0 | 142 | Cassava | 3.0 |
| 1983/84 | 1,688 | 217 | 728 | 2,317 | 0 | 145 | Vegetable | |
| 1984/85 | 1,640 | 316 | 705 | 2,430 | 0 | 150 | oil | 3.5 |
| 1985/86 | 1,809 | 231 | 870 | 2,592 | 0 | 157 | Total | 62.3 |
| 1986/87 | 1,734 | 318 | | | | | | |
| 1987/88 | 1,600 | 318 | | | | | | |
| Roots | | | | | | | | |
| 1980/81 | 500 | 0 | 0 | 500 | 0 | 33 | | |
| 1981/82 | 526 | 0 | 0 | 526 | 0 | 34 | | |
| 1982/83 | 573 | 0 | 0 | 573 | 0 | 37 | | |
| 1983/84 | 722 | 0 | 0 | 722 | 0 | 45 | | |
| 1984/85 | 477 | 0 | 0 | 477 | 0 | 29 | | |
| 1985/86 | 486 | 0 | 0 | 486 | 0 | 29 | | |
| 1986/87 | 500 | 0 | | | | | | |
| 1987/88 | 550 | 0 | | | | | | |
| Vegetable oils | | | | | | | | |
| 1980/81 | 78 | 0 | (5) | 73 | 0 | 5 | | |
| 1981/82 | 103 | 0 | (35) | 68 | 0 | 4 | | |
| 1982/83 | 87 | 0 | (26) | 61 | 0 | 4 | | |
| 1983/84 | 37 | 0 | 1 | 38 | 0 | 2 | | |
| 1984/85 | 130 | 0 | (63) | 67 | 0 | 4 | | |
| 1985/86 | 140 | 0 | (62) | 78 | 0 | 5 | | |
| 1986/87 | 135 | 0 | | | | | | |
| 1987/88 | 140 | 0 | | | | | | |

Import requirements for Sri Lanka

| Commodity/year | Production | Total use | | Import requirements | | |
|-------------------|------------|-------------------|---------------------|---------------------|---------------------|-----------------------|
| | | Status quo | Nutrition- based | Status quo | Nutrition- based | Maximum absorbable |
| | | <u>1,000 tons</u> | | | | |
| Major cereals | | | | | | |
| 1986/87 | 1,734 | 2,450 | 2,459 | 716 | 725 | 1,042 |
| 1987/88 | 1,600 | 2,494 | 2,489 | 894 | 889 | 1,224 |
| Roots | | | | | | |
| 1986/87 | 500 | 607 | 558 | 107 | 58 | NA |
| 1987/88 | 550 | 618 | 580 | 68 | 30 | NA |
| Cereal equivalent | | | | | | |
| 1986/87 | 1,930 | 2,687 | 2,678 | 757 | 748 | 1,097 |
| 1987/88 | 1,816 | 2,736 | 2,717 | 920 | 901 | 1,264 |
| Vegetable oils | | | | | | |
| 1986/87 | 135 | 72 | 92 | (63) | (43) | (54) |
| 1987/88 | 140 | 73 | 94 | (67) | (46) | (57) |

Financial indicators for Sri Lanka, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | <u>Million dollars</u> | | | | <u>Percent</u> | |
| 1980 | 1,477 | 2,269 | 229 | 246 | 1,248 | 15 |
| 1981 | 1,578 | 2,183 | 266 | 327 | 1,312 | 13 |
| 1982 | 1,612 | 2,322 | 300 | 351 | 1,312 | 9 |
| 1983 | 1,678 | 2,315 | 341 | 297 | 1,337 | 10 |
| 1984 | 2,073 | 2,269 | 317 | 511 | 1,756 | 7 |
| 1985 | 1,902 | 2,601 | 226 | 451 | 1,676 | |
| 1986 | 1,870 | 2,730 | 485 | 400 | 1,323 | 8 |
| 1987 | 1,942 | 2,750 | 537 | 400 | 1,339 | 8 |

Additional food needs to support consumption for Sri Lanka, with stock adjustment

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|----------------------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 594 | 79 | 162 | 22 | 152 | 20 |
| 1987/88 | 630 | 80 | 288 | 37 | 270 | 34 |
| Stock adjustment | | | | | | |
| 1986/87 | | | (57) | (8) | (57) | (8) |
| 1987/88 | | | 71 | 9 | 71 | 9 |
| Total | | | | | | |
| 1986/87 | | | 105 | 14 | 95 | 13 |
| 1987/88 | | | 359 | 46 | 341 | 43 |
| Vegetable oils | | | | | | |
| 1986/87 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1987/88 | 1 | 0 | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | 79 | | 14 | | 13 |
| 1987/88 | | 80 | | 46 | | 43 |

Southeast Asia

The region's 1986/87 cereal output is now estimated at 54.6 million tons, 4 percent above last year and about 2 percent higher than estimated previously. Larger cereal crops in Indonesia and the Philippines account for the revision, while cereal production estimates for the rest of the region are unchanged. Record rice and corn harvests are expected in the Philippines, despite weakening rice prices and drought in some areas. The Indonesian corn harvest is expected to be 3 percent smaller than previously estimated, but still larger than last year's poor crop, and rice production is now expected to match last year's. Regional root and tuber production is now estimated to drop even further to 16.1 million tons, because Indonesian cassava farmers switched land into corn and soybeans. Regional

vegetable oil production is estimated at 3.9 million tons (up 22 percent), largely because the rebound in Philippine copra supplies is being supported by coconut oil export demand.

Because of higher production estimates in the Philippines, Southeast Asia's 1986/87 status quo cereal import requirement is now estimated at 1.9 million tons, 26 percent below the earlier estimate. Vietnam accounts for about 60 percent of regional import needs, while the Philippines' share drops to 25 percent, and Cambodia accounts for the remainder. To meet FAO minimum nutritional needs, import requirements are now estimated at 2.0 million tons, one-third below the previous assessment, because of higher estimates of Philippine cereal production. The balance of payments position of most countries in the region remains tight. Although Indonesia still enjoys a positive trade balance, and is estimated to continue having ample capacity to import its food needs commercially, export earnings continue to decline. The previously assumed Philippine debt rescheduling did occur in March 1987, leaving the Philippines with adequate capacity to import its food needs commercially. However, the Government's efforts to stimulate the economy through deficit spending results in a critical need for budget support, and the balance of payments is likely to tighten as imports accelerate to support economic growth and export performance remains sluggish.

During 1986/87, Cambodia accounts for all the region's estimated additional cereal needs. Cambodia's status quo and nutrition-based additional cereal needs are estimated at 136,000 tons and 321,000 tons, respectively. Assuming average weather, the region's cereal output is projected to expand marginally to 55 million tons during 1987/88, about 2 percent more than projected earlier. Gains in Philippine rice and corn output are expected to offset lower Indonesian corn production. Indonesian rice output is still projected lower than the 1986/87 harvest, as farmers attempt to control pest infestation by switching to more resistant but lower-yielding rice varieties. However, with the release of improved cassava varieties in October 1986, Indonesian root and tuber output is projected to rebound. As in 1986/87, Vietnam, the Philippines, and Cambodia are projected to account for all of the regions's status quo and nutrition-based cereal import requirements, each estimated at 2.1 million tons. Additional food needs are expected to continue to be confined to Cambodia at levels near those estimated for 1986/87.

Southeast Asia basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 42,590 | 2,891 | 5,538 | 260,542 | 181 |
| 1981/82 | 46,585 | 3,858 | 4,011 | 266,683 | 188 |
| 1982/83 | 45,867 | 4,381 | 4,058 | 272,741 | 186 |
| 1983/84 | 49,912 | 3,683 | 4,956 | 278,762 | 198 |
| 1984/85 | 52,227 | 3,452 | 4,292 | 285,041 | 194 |
| 1985/86 | 52,543 | 4,647 | 3,432 | 291,496 | 191 |
| 1986/87 | 54,620 | 5,023 | | 298,244 | |
| 1987/88 | 54,999 | 5,023 | | 305,074 | |

Southeast Asia cereal use, additional needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|-------------------|------------|------------|------------------|------------|-----------------|------------|
| | Status | Nutrition- | Status quo | | Nutrition-based | |
| | quo | based | Quantity | Value | Quantity | Value |
| | 1,000 tons | 1,000 tons | 1,000 tons | Million \$ | 1,000 tons | Million \$ |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 61,925 | 59,581 | 136 | 25 | 321 | 59 |
| 1987/88 | 63,338 | 60,898 | 140 | 25 | 329 | 58 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | | 136 | 25 | 321 | 59 |
| 1987/88 | | | 140 | 25 | 329 | 58 |

Philippines

The Philippines' Department of Agriculture recently revised its estimates of the record 1985/86 rice and corn crops even higher to 5.9 million tons (up 5 percent) and 3.9 million tons (up 11 percent), respectively. Stronger prices and cheaper fertilizer encouraged farmers to expand area and fertilizer use in 1985/86. During 1986/87, slower growth in rice output is anticipated because of lower prices and drought-induced reductions in area planted to the (April-June harvested) second crop. Still, rice production is estimated to reach a record 6.1 million tons, up 3 percent from 1985/86. Despite dry weather in some areas, corn production is estimated at a record 4.1 million tons, up 5 percent. The higher estimates of cereal production have reduced the 1986/87 status quo import requirement estimate to 493,000 tons, nearly 60 percent less than in the previous assessment. To meet the FAO recommended minimum caloric intake level, cereal imports of 1.2 million tons, one-third less than the earlier estimate, would be required. Although 1987 coconut output is uncertain, current estimates indicate that supplies will be adequate to meet both status quo and nutrition-based consumption requirements, as well as export demand.

Assuming average rainfall and steady growth in rice and corn production in 1987/88, status quo cereal import needs are projected to fall to 366,000 tons, two-thirds below the previous estimate. Nutrition-based cereal import needs are projected at 1.1 million tons in 1987/88, down 37 percent. Current balance of payments forecasts indicate that the Philippines' commercial import capacity is adequate to meet both status quo and nutrition-based import requirements during 1986/87 and 1987/88. This assessment incorporates the impact of the March 1987 debt rescheduling agreement. In that agreement, payments on nearly half of the country's \$27-billion foreign debt were rescheduled in an effort to strengthen economic growth and improve future debt servicing capacity. Even so, the Philippines' financial situation remains tight. Debt service payments will still account for about 35 percent of export earnings and the balance of payments surplus is projected to narrow as imports accelerate to support economic growth, and export performance remains sluggish. The Government's efforts to stimulate the economy through deficit spending, coupled with improving local food supplies, indicate a shift in assistance needs from food commodities towards balance of payments support.

Philippines basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|----------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | | | 1,000 tons | | | Kilos | | Percent |
| Major cereals | | | | | | | | |
| 1980/81 | 8,130 | 1,879 | 1,054 | 7,273 | 2,015 | 189 | Rice | 39.4 |
| 1981/82 | 8,560 | 1,775 | 1,132 | 7,577 | 2,120 | 192 | Corn | 9.4 |
| 1982/83 | 8,151 | 1,770 | 1,320 | 7,489 | 2,199 | 187 | Wheat | 5.4 |
| 1983/84 | 8,443 | 1,553 | 994 | 7,986 | 1,850 | 185 | Cassava | 5.7 |
| 1984/85 | 8,769 | 1,154 | 1,520 | 8,207 | 1,922 | 186 | Coconut oil | 3.3 |
| 1985/86 | 9,835 | 1,285 | 1,297 | 8,443 | 2,072 | 188 | Sweet potato | 2.6 |
| 1986/87 | 10,193 | 1,902 | | | | | Total | 65.7 |
| 1987/88 | 10,539 | 1,902 | | | | | | |
| Roots | | | | | | | | |
| 1980/81 | 3,265 | 0 | 0 | 3,265 | 0 | 66 | | |
| 1981/82 | 3,025 | 0 | 0 | 3,025 | 0 | 60 | | |
| 1982/83 | 1,970 | 0 | 0 | 1,970 | 0 | 38 | | |
| 1983/84 | 2,084 | 0 | 0 | 2,084 | 0 | 39 | | |
| 1984/85 | 2,327 | 0 | 0 | 2,327 | 0 | 43 | | |
| 1985/86 | 2,575 | 0 | 0 | 2,575 | 0 | 46 | | |
| 1986/87 | 2,800 | 0 | | | | | | |
| 1987/88 | 3,000 | 0 | | | | | | |
| Vegetable oils | | | | | | | | |
| 1980/81 | 1,072 | 90 | (914) | 182 | 0 | 4 | | |
| 1981/82 | 1,250 | 66 | (1,047) | 204 | 0 | 4 | | |
| 1982/83 | 1,246 | 65 | (949) | 292 | 0 | 6 | | |
| 1983/84 | 1,225 | 70 | (1,020) | 235 | 0 | 4 | | |
| 1984/85 | 866 | 40 | (586) | 239 | 0 | 4 | | |
| 1985/86 | 919 | 104 | (655) | 253 | 0 | 5 | | |
| 1986/87 | 1,544 | 115 | | | | | | |
| 1987/88 | 1,430 | 115 | | | | | | |

Import requirements for Philippines

| Commodity/year | Production | Total use | | Import requirements | | |
|-------------------|-------------------------------|------------|-----------------|---------------------|-----------------|--------------------|
| | | Status quo | Nutrition-based | Status quo | Nutrition-based | Maximum absorbable |
| | ----- <u>1,000 tons</u> ----- | | | | | |
| Major cereals | | | | | | |
| 1986/87 | 10,193 | 10,683 | 10,988 | 490 | 795 | 789 |
| 1987/88 | 10,539 | 10,950 | 11,274 | 411 | 735 | 718 |
| Roots | | | | | | |
| 1986/87 | 2,800 | 2,807 | 4,035 | 7 | 1,235 | 1,337 |
| 1987/88 | 3,000 | 2,877 | 4,141 | (123) | 1,141 | 1,241 |
| Cereal equivalent | | | | | | |
| 1986/87 | 11,217 | 11,710 | 12,465 | 493 | 1,248 | 1,019 |
| 1987/88 | 11,637 | 12,003 | 12,790 | 366 | 1,153 | 905 |
| Vegetable oils | | | | | | |
| 1986/87 | 1,544 | 249 | 779 | (1,295) | (765) | (1,222) |
| 1987/88 | 1,430 | 255 | 739 | (1,175) | (691) | (1,100) |

Financial indicators for Philippines, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | ----- Million dollars ----- | | | | Percent | |
| 1980 | 7,997 | 10,348 | 1,668 | 2,846 | 6,329 | 5 |
| 1981 | 8,583 | 11,151 | 2,169 | 2,066 | 6,414 | 5 |
| 1982 | 8,004 | 11,690 | 3,050 | 888 | 4,954 | 7 |
| 1983 | 8,132 | 11,355 | 2,903 | 747 | 5,229 | 6 |
| 1984 | 8,374 | 9,656 | 3,438 | 602 | 4,936 | 7 |
| 1985 | 7,917 | 8,288 | 1,257 | 615 | 6,660 | |
| 1986 | 8,400 | 7,900 | 3,000 | 1,500 | 6,350 | 7 |
| 1987 | 8,500 | 8,900 | 3,000 | 1,800 | 6,681 | 7 |

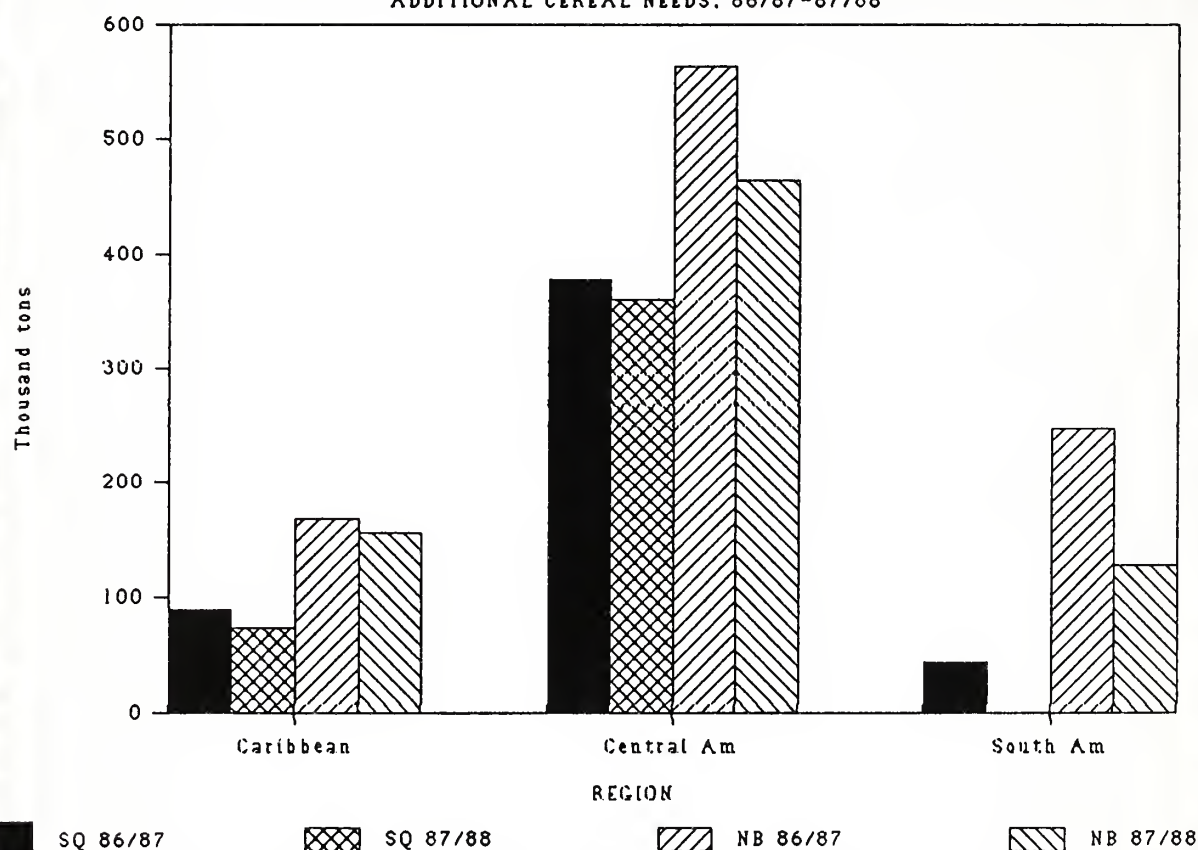
*Additional food needs to support consumption for Philippines,
with stock adjustment*

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 2,264 | 252 | 0 | 0 | 0 | 0 |
| 1987/88 | 2,495 | 266 | 0 | 0 | 0 | 0 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | | 0 | 0 | 0 | 0 |
| 1987/88 | | | 0 | 0 | 0 | 0 |
| Vegetable oils | | | | | | |
| 1986/87 | 63 | 20 | 0 | 0 | 0 | 0 |
| 1987/88 | 62 | 21 | 0 | 0 | 0 | 0 |
| Total | | | | | | |
| 1986/87 | | 273 | | 0 | | 0 |
| 1987/88 | | 287 | | 0 | | 0 |

Latin America

LATIN AMERICA

ADDITIONAL CEREAL NEEDS, 86/87-87/88



Caribbean

Caribbean basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 852 | 99 | 979 | 13,743 | 131 |
| 1981/82 | 711 | 131 | 896 | 14,046 | 116 |
| 1982/83 | 790 | 115 | 935 | 14,355 | 121 |
| 1983/84 | 759 | 139 | 964 | 14,673 | 121 |
| 1984/85 | 796 | 95 | 1,062 | 14,918 | 125 |
| 1985/86 | 681 | 73 | 1,165 | 15,328 | 124 |
| 1986/87 | 761 | 74 | | 15,700 | |
| 1987/88 | 779 | 74 | | 15,993 | |

Caribbean cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition-based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 2,356 | 2,378 | 89 | 15 | 167 | 28 |
| 1987/88 | 2,409 | 2,429 | 74 | 12 | 155 | 25 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 77 | 9 | 77 | 9 |
| 1987/88 | | | 1 | 0 | 1 | 0 |
| Total | | | | | | |
| 1986/87 | | | 142 | 21 | 196 | 32 |
| 1987/88 | | | 74 | 12 | 155 | 25 |

Central America

Central America basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------|------------------|-------------|-----------------|----------------------|
| | <u>1,000 tons</u> | | | <u>Thousand</u> | <u>Kilos</u> |
| Major cereals | | | | | |
| 1980/81 | 2,456 | 405 | 708 | 20,344 | 156 |
| 1981/82 | 2,670 | 390 | 502 | 20,759 | 159 |
| 1982/83 | 2,518 | 334 | 661 | 21,327 | 157 |
| 1983/84 | 2,656 | 324 | 677 | 21,905 | 161 |
| 1984/85 | 2,840 | 386 | 612 | 22,547 | 164 |
| 1985/86 | 2,789 | 493 | 672 | 23,230 | 171 |
| 1986/87 | 2,708 | 485 | | 23,912 | |
| 1987/88 | 2,860 | 485 | | 24,614 | |

Central America cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition-based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent Consumption | | | | | | |
| 1986/87 | 3,604 | 3,761 | 379 | 64 | 564 | 83 |
| 1987/88 | 3,710 | 3,863 | 361 | 55 | 464 | 62 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 77 | 13 | 77 | 13 |
| 1987/88 | | | 20 | 4 | 25 | 4 |
| Total | | | | | | |
| 1986/87 | | | 444 | 75 | 640 | 95 |
| 1987/88 | | | 378 | 58 | 478 | 64 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 444 | 75 | 622 | 93 |
| 1987/88 | | | 378 | 58 | 478 | 64 |

South America

Overall, additional status quo food needs for South America were revised from 19,000 to 40,000 tons but nutrition-based needs were essentially unchanged from the 157,000 tons reported earlier, in 1986/87, mostly because of the revision in Bolivia's rice production estimate.

Several factors bear watching in estimating near-term food needs. El Nino has been reported, but the repercussions are not as severe as in 1982/83. Ecuador reports limited losses from the El Nino in early 1987. Peru's northern coast has had above-normal rainfall. Cotton and potato yields may have been reduced in the region. But increased rainfall has increased the supply of irrigation water in the major dams, which will improve prospects for rice and corn crops and slow the decline in sugar production.

In early March, Ecuador was shaken by an earthquake. Economic repercussions were rather severe, since the oil pipeline connecting the oil fields was severed and will take at least 4 months to repair. Since petroleum provides nearly one-half of Ecuador's foreign exchange, export earnings will probably decline, and set back Ecuador's commercial import capacity in 1987. However, this will not reduce commercial import capacity enough to generate additional food needs.

South America basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Population | Per capita total use |
|----------------|-------------------------------------|---------------------|----------------|------------|----------------------------|
| | ----- 1,000 tons ----- | | | Thousand | Kilos |
| Major cereals | | | | | |
| 1980/81 | 3,898 | 1,016 | 2,589 | 55,803 | 116 |
| 1981/82 | 4,452 | 1,056 | 2,552 | 57,032 | 122 |
| 1982/83 | 4,536 | 1,099 | 2,496 | 58,319 | 122 |
| 1983/84 | 4,094 | 1,037 | 2,889 | 59,657 | 120 |
| 1984/85 | 4,779 | 864 | 2,377 | 61,046 | 114 |
| 1985/86 | 4,540 | 1,047 | 2,679 | 62,486 | 114 |
| 1986/87 | 4,634 | 1,103 | | 63,955 | |
| 1987/88 | 4,665 | 1,103 | | 65,460 | |

South America cereal use, additional food needs to support consumption, and stock adjustment

| Commodity/year | Total use | | Additional needs | | | |
|--------------------|-------------------|---------------------|-------------------|-------------------|-------------------|-------------------|
| | Status quo | Nutrition- based | Status quo | | Nutrition-based | |
| | | | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 10,278 | 10,302 | 44 | 6 | 247 | 33 |
| 1987/88 | 10,521 | 10,526 | 0 | 0 | 126 | 16 |
| Stock adjustment | | | | | | |
| 1986/87 | | | 46 | 6 | 84 | 12 |
| 1987/88 | | | 26 | 3 | 26 | 3 |
| Total | | | | | | |
| 1986/87 | | | 40 | 5 | 261 | 35 |
| 1987/88 | | | 0 | 0 | 128 | 16 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 40 | 5 | 158 | 21 |
| 1987/88 | | | 0 | 0 | 1 | 0 |

Bolivia

In 1986, Bolivia's agricultural production was poorer than anticipated as overall output declined by 4 percent. Output of sugar, coffee, potatoes, rice, soybeans, and sorghum declined, while corn and wheat production showed some improvement.

Estimates of rice production are revised down from 132,000 tons to 97,000 tons for 1986/87. Other foods like potatoes had already been revised downward. Consequently, status quo additional food needs for 1986/87 increased from 19,000 tons in grain equivalent to 40,000 tons, allowing for stock adjustment. Nutrition-based needs for 1986/87 increased from 215,000 tons to 243,000 tons. Estimates for 1987/88 are unchanged.

Bolivia basic food data

| Commodity/year | Actual or forecast production | Beginning stocks | Net imports | Nonfeed use | Feed use | Per capita total use | 1979-81 | |
|----------------|-------------------------------------|---------------------|-------------------|----------------|-------------|----------------------------|-----------------------|------------------|
| | | | | | | | Commodity coverage | Share of diet |
| | | | <u>1,000 tons</u> | | | <u>Kilos</u> | | <u>Percent</u> |
| Major cereals | | | | | | | | |
| 1980/81 | 509 | 77 | 261 | 529 | 225 | 141 | Wheat | 21.5 |
| 1981/82 | 642 | 93 | 151 | 461 | 360 | 150 | Rice | 5.2 |
| 1982/83 | 576 | 65 | 210 | 450 | 360 | 144 | Corn | 13.3 |
| 1983/84 | 458 | 41 | 375 | 541 | 310 | 148 | Cassava | 3.7 |
| 1984/85 | 694 | 23 | 264 | 520 | 410 | 158 | Potatoes | 8.2 |
| 1985/86 | 735 | 51 | 290 | 515 | 470 | 164 | Total | 51.8 |
| 1986/87 | 632 | 91 | | | | | | |
| 1987/88 | 735 | 91 | | | | | | |
| Roots | | | | | | | | |
| 1980/81 | 1,006 | 0 | 0 | 1,006 | 0 | 188 | | |
| 1981/82 | 1,180 | 0 | 0 | 1,180 | 0 | 215 | | |
| 1982/83 | 1,124 | 0 | 0 | 1,124 | 0 | 200 | | |
| 1983/84 | 457 | 0 | 0 | 457 | 0 | 80 | | |
| 1984/85 | 883 | 0 | 0 | 883 | 0 | 150 | | |
| 1985/86 | 936 | 0 | 0 | 936 | 0 | 155 | | |
| 1986/87 | 892 | 0 | | | | | | |
| 1987/88 | 1,020 | 0 | | | | | | |

Import requirements for Bolivia

| Commodity/year | Production | Total use | | Import requirements | | |
|-------------------|------------|---------------|---------------------|---------------------|---------------------|-----------------------|
| | | Status quo | Nutrition- based | Status quo | Nutrition- based | Maximum absorbable |
| | | | <u>1,000 tons</u> | | | |
| Major cereals | | | | | | |
| 1986/87 | 632 | 886 | 1,080 | 254 | 448 | 379 |
| 1987/88 | 735 | 907 | 1,111 | 172 | 376 | 300 |
| Roots | | | | | | |
| 1986/87 | 892 | 1,109 | 1,143 | 217 | 251 | 436 |
| 1987/88 | 1,020 | 1,136 | 1,208 | 116 | 188 | 340 |
| Cereal equivalent | | | | | | |
| 1986/87 | 872 | 1,182 | 1,384 | 310 | 513 | 406 |
| 1987/88 | 1,006 | 1,210 | 1,433 | 203 | 426 | 302 |

Financial indicators for Bolivia, actual and projected

| Year | Exports and other credits | Imports and other debits | Debt service | International reserves | Foreign exchange available | |
|------|---------------------------------|--------------------------------|-----------------|---------------------------|----------------------------|--------------------------------|
| | | | | | Total | Share to major food imports |
| | | | | | <u>Million dollars</u> | <u>Percent</u> |
| 1980 | 1,058 | 1,232 | 290 | 106 | 768 | 6 |
| 1981 | 1,028 | 1,354 | 281 | 100 | 747 | 9 |
| 1982 | 921 | 1,059 | 287 | 156 | 634 | 8 |
| 1983 | 882 | 1,138 | 284 | 160 | 598 | 9 |
| 1984 | 837 | 1,104 | 320 | 252 | 517 | 10 |
| 1985 | 813 | 1,099 | 214 | 200 | 598 | |
| 1986 | 764 | 1,102 | 246 | 200 | 525 | 9 |
| 1987 | 825 | 1,098 | 266 | 200 | 567 | 9 |

Additional food needs to support consumption for Bolivia, with stock adjustment

| Commodity/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|--------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Cereal equivalent | | | | | | |
| Consumption | | | | | | |
| 1986/87 | 265 | 35 | 44 | 6 | 247 | 33 |
| 1987/88 | 300 | 38 | 0 | 0 | 126 | 16 |
| Stock adjustment | | | | | | |
| 1986/87 | | | (4) | (1) | (4) | (1) |
| 1987/88 | | | 2 | 0 | 2 | 0 |
| Total | | | | | | |
| 1986/87 | | | 40 | 5 | 243 | 32 |
| 1987/88 | | | 0 | 0 | 128 | 16 |
| Maximum absorbable | | | | | | |
| Cereal equivalent | | | | | | |
| 1986/87 | | | 40 | 5 | 140 | 18 |
| 1987/88 | | | 0 | 0 | 1 | 0 |

GLOSSARY OF TERMS

| | |
|--------------------|--|
| Status quo | A measure of per capita food availability in recent years |
| Nutrition-based | Per capita food availability sufficient to meet internationally accepted minimum caloric standards |
| Cereal equivalent | Cereal required to meet both cereal shortfalls and cereal equivalent |
| Import requirement | Imports necessary to achieve either status quo or nutrition-based food availability, including both commercial and concessional food shipments |
| Tons | Metric tons |
| Dollars | U.S. dollars unless otherwise specified |
| GNP | Gross national product |
| GDP | Gross domestic product |

APPENDIX A

Country Cereal Needs

| Country/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|---------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| North Africa | | | | | | |
| Egypt | | | | | | |
| 1986/87 | 6,686 | 1,080 | 2,229 | 360 | 0 | 0 |
| 1987/88 | 7,348 | 1,133 | 1,830 | 282 | 0 | 0 |
| Morocco | | | | | | |
| 1986/87 | 3,295 | 351 | 0 | 0 | 0 | 0 |
| 1987/88 | 3,506 | 356 | 0 | 0 | 0 | 0 |
| Tunisia | | | | | | |
| 1986/87 | 1,377 | 153 | 394 | 44 | 0 | 0 |
| 1987/88 | 1,368 | 145 | 0 | 0 | 0 | 0 |
| West Africa | | | | | | |
| Benin | | | | | | |
| 1986/87 | 160 | 23 | 0 | 0 | 0 | 0 |
| 1987/88 | 186 | 26 | 0 | 0 | 0 | 0 |
| Burkina Faso | | | | | | |
| 1986/87 | 144 | 18 | 0 | 0 | 0 | 0 |
| 1987/88 | 145 | 18 | 0 | 0 | 0 | 0 |
| Cameroon | | | | | | |
| 1986/87 | 186 | 28 | 6 | 1 | 37 | 5 |
| 1987/88 | 195 | 28 | 29 | 4 | 51 | 7 |
| Cape Verde | | | | | | |
| 1986/87 | 6 | 1 | 63 | 11 | 38 | 6 |
| 1987/88 | 7 | 1 | 66 | 11 | 40 | 7 |
| Chad | | | | | | |
| 1986/87 | 5 | 1 | 0 | 0 | 274 | 47 |
| 1987/88 | 6 | 1 | 150 | 24 | 417 | 68 |
| Gambia | | | | | | |
| 1986/87 | 25 | 4 | 22 | 4 | 22 | 4 |
| 1987/88 | 27 | 4 | 0 | 0 | 17 | 3 |
| Ghana | | | | | | |
| 1986/87 | 485 | 84 | 0 | 0 | 253 | 44 |
| 1987/88 | 508 | 84 | 0 | 0 | 250 | 41 |
| Guinea | | | | | | |
| 1986/87 | 101 | 20 | 10 | 2 | 166 | 32 |
| 1987/88 | 108 | 20 | 0 | 0 | 161 | 30 |
| Guinea-Bissau | | | | | | |
| 1986/87 | 7 | 1 | 7 | 1 | 5 | 1 |
| 1987/88 | 8 | 1 | 3 | 1 | 2 | 0 |
| Liberia | | | | | | |
| 1986/87 | 86 | 19 | 50 | 11 | 73 | 16 |
| 1987/88 | 90 | 19 | 50 | 10 | 73 | 15 |
| Mali | | | | | | |
| 1986/87 | 151 | 35 | 0 | 0 | 304 | 71 |
| 1987/88 | 170 | 38 | 16 | 4 | 398 | 89 |
| Mauritania | | | | | | |
| 1986/87 | 217 | 34 | 0 | 0 | 0 | 0 |
| 1987/88 | 227 | 34 | 0 | 0 | 6 | 1 |
| Niger | | | | | | |
| 1986/87 | 118 | 18 | 23 | 3 | 166 | 25 |
| 1987/88 | 130 | 19 | 77 | 11 | 207 | 30 |
| Senegal | | | | | | |
| 1986/87 | 680 | 95 | 83 | 12 | 30 | 4 |
| 1987/88 | 712 | 95 | 49 | 6 | 0 | 0 |
| Sierra Leone | | | | | | |
| 1986/87 | 171 | 32 | 0 | 0 | 0 | 0 |
| 1987/88 | 179 | 32 | 0 | 0 | 0 | 0 |
| Togo | | | | | | |
| 1986/87 | 103 | 17 | 10 | 2 | 49 | 8 |
| 1987/88 | 108 | 17 | 5 | 1 | 46 | 7 |

| Country/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Central Africa | | | | | | |
| Angola | | | | | | |
| 1986/87 | 383 | 57 | 41 | 6 | 56 | 8 |
| 1987/88 | 401 | 57 | 24 | 3 | 40 | 6 |
| Central Afr. Rep. | | | | | | |
| 1986/87 | 41 | 7 | 8 | 1 | 21 | 4 |
| 1987/88 | 44 | 7 | 12 | 2 | 25 | 4 |
| Congo | | | | | | |
| 1986/87 | 94 | 15 | 0 | 0 | 2 | 0 |
| 1987/88 | 118 | 17 | 0 | 0 | 0 | 0 |
| Equatorial Guinea | | | | | | |
| 1986/87 | 1 | 0 | 3 | 1 | NA | NA |
| 1987/88 | 1 | 0 | 4 | 1 | NA | NA |
| Zaire | | | | | | |
| 1986/87 | 320 | 53 | 103 | 17 | 234 | 38 |
| 1987/88 | 340 | 53 | 153 | 24 | 283 | 44 |
| East Africa | | | | | | |
| Burundi | | | | | | |
| 1986/87 | 28 | 8 | 16 | 5 | 284 | 83 |
| 1987/88 | 30 | 8 | 18 | 5 | 293 | 81 |
| Djibouti | | | | | | |
| 1986/87 | 41 | 9 | 6 | 1 | NA | NA |
| 1987/88 | 43 | 9 | 5 | 1 | NA | NA |
| Ethiopia | | | | | | |
| 1986/87 | 177 | 20 | 860 | 97 | 2,749 | 310 |
| 1987/88 | 192 | 21 | 611 | 66 | 2,576 | 277 |
| Kenya | | | | | | |
| 1986/87 | 185 | 35 | 0 | 0 | 718 | 137 |
| 1987/88 | 179 | 33 | 235 | 43 | 1,140 | 208 |
| Rwanda | | | | | | |
| 1986/87 | 15 | 5 | 22 | 7 | 194 | 61 |
| 1987/88 | 15 | 5 | 41 | 12 | 211 | 64 |
| Somalia | | | | | | |
| 1986/87 | 148 | 26 | 17 | 3 | 336 | 59 |
| 1987/88 | 172 | 29 | 49 | 8 | 372 | 63 |
| Sudan | | | | | | |
| 1986/87 | 584 | 63 | 0 | 0 | 0 | 0 |
| 1987/88 | 563 | 58 | 0 | 0 | 0 | 0 |
| Tanzania | | | | | | |
| 1986/87 | 129 | 24 | 56 | 11 | 0 | 0 |
| 1987/88 | 138 | 25 | 361 | 64 | 141 | 25 |
| Uganda | | | | | | |
| 1986/87 | 49 | 9 | 0 | 0 | 0 | 0 |
| 1987/88 | 44 | 8 | 0 | 0 | 0 | 0 |

| Country/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-----------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Southern Africa | | | | | | |
| Botswana | | | | | | |
| 1986/87 | 170 | 34 | 0 | 0 | 0 | 0 |
| 1987/88 | 159 | 30 | 0 | 0 | 0 | 0 |
| Comoros | | | | | | |
| 1986/87 | 24 | 4 | 8 | 1 | 43 | 7 |
| 1987/88 | 28 | 4 | 6 | 1 | 41 | 6 |
| Lesotho | | | | | | |
| 1986/87 | 175 | 22 | 0 | 0 | 57 | 7 |
| 1987/88 | 177 | 21 | 0 | 0 | 47 | 6 |
| Madagascar | | | | | | |
| 1986/87 | 424 | 74 | 0 | 0 | 0 | 0 |
| 1987/88 | 467 | 78 | 0 | 0 | 0 | 0 |
| Malawi | | | | | | |
| 1986/87 | 33 | 6 | 19 | 4 | 122 | 23 |
| 1987/88 | 38 | 7 | 34 | 6 | 138 | 25 |
| Mauritius | | | | | | |
| 1986/87 | 303 | 56 | 0 | 0 | 0 | 0 |
| 1987/88 | 333 | 59 | 0 | 0 | 0 | 0 |
| Mozambique | | | | | | |
| 1986/87 | 106 | 15 | 538 | 77 | 1,374 | 196 |
| 1987/88 | 112 | 15 | 662 | 90 | 1,513 | 206 |
| Swaziland | | | | | | |
| 1986/87 | 50 | 5 | 0 | 0 | 0 | 0 |
| 1987/88 | 56 | 6 | 11 | 1 | 0 | 0 |
| Zambia | | | | | | |
| 1986/87 | 242 | 30 | 0 | 0 | 264 | 33 |
| 1987/88 | 269 | 32 | 69 | 8 | 420 | 50 |
| Zimbabwe | | | | | | |
| 1986/87 | 251 | 35 | 0 | 0 | 0 | 0 |
| 1987/88 | 268 | 36 | 36 | 5 | 264 | 35 |
| Middle East | | | | | | |
| Lebanon | | | | | | |
| 1986/87 | 237 | 30 | 351 | 44 | 287 | 36 |
| 1987/88 | 242 | 29 | 352 | 42 | 287 | 35 |
| North Yemen | | | | | | |
| 1986/87 | 536 | 81 | 190 | 29 | 89 | 13 |
| 1987/88 | 549 | 79 | 179 | 26 | 79 | 11 |
| South Yemen | | | | | | |
| 1986/87 | 189 | 36 | 110 | 21 | 97 | 18 |
| 1987/88 | 197 | 36 | 112 | 20 | 99 | 18 |

| Country/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|--------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| South Asia | | | | | | |
| Afghanistan | | | | | | |
| 1986/87 | 129 | 21 | 260 | 43 | 316 | 52 |
| 1987/88 | 133 | 21 | 295 | 47 | 348 | 55 |
| Bangladesh | | | | | | |
| 1986/87 | 1,286 | 188 | 136 | 20 | 3,346 | 489 |
| 1987/88 | 1,480 | 207 | 0 | 0 | 2,898 | 404 |
| India | | | | | | |
| 1986/87 | 3,771 | 547 | 0 | 0 | 3,324 | 482 |
| 1987/88 | 4,182 | 579 | 0 | 0 | 0 | 0 |
| Nepal | | | | | | |
| 1986/87 | 66 | 11 | 205 | 34 | 694 | 117 |
| 1987/88 | 29 | 5 | 0 | 0 | 509 | 81 |
| Pakistan | | | | | | |
| 1986/87 | 256 | 34 | 0 | 0 | 0 | 0 |
| 1987/88 | 286 | 36 | 0 | 0 | 0 | 0 |
| Sri Lanka | | | | | | |
| 1986/87 | 594 | 79 | 162 | 22 | 152 | 20 |
| 1987/88 | 630 | 80 | 288 | 37 | 270 | 34 |
| East Asia | | | | | | |
| Cambodia | | | | | | |
| 1986/87 | 109 | 20 | 136 | 25 | 321 | 59 |
| 1987/88 | 114 | 20 | 140 | 25 | 329 | 58 |
| Indonesia | | | | | | |
| 1986/87 | 2,025 | 252 | 0 | 0 | 0 | 0 |
| 1987/88 | 2,806 | 334 | 0 | 0 | 0 | 0 |
| Laos | | | | | | |
| 1986/87 | 94 | 22 | 0 | 0 | 0 | 0 |
| 1987/88 | 93 | 21 | 0 | 0 | 0 | 0 |
| Philippines | | | | | | |
| 1986/87 | 2,264 | 252 | 0 | 0 | 0 | 0 |
| 1987/88 | 2,495 | 266 | 0 | 0 | 0 | 0 |
| Vietnam | | | | | | |
| 1986/87 | 1,712 | 195 | 0 | 0 | 0 | 0 |
| 1987/88 | 1,969 | 214 | 0 | 0 | 0 | 0 |

| Country/year | Commercial import capacity | | Status quo | | Nutrition-based | |
|-----------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> | <u>1,000 tons</u> | <u>Million \$</u> |
| Caribbean | | | | | | |
| Dominican Rep. | | | | | | |
| 1986/87 | 464 | 45 | 0 | 0 | 0 | 0 |
| 1987/88 | 500 | 47 | 0 | 0 | 0 | 0 |
| Haiti | | | | | | |
| 1986/87 | 183 | 30 | 89 | 15 | 167 | 28 |
| 1987/88 | 195 | 31 | 74 | 12 | 155 | 25 |
| Jamaica | | | | | | |
| 1986/87 | 464 | 71 | 0 | 0 | 0 | 0 |
| 1987/88 | 495 | 72 | 0 | 0 | 0 | 0 |
| Central America | | | | | | |
| Costa Rica | | | | | | |
| 1986/87 | 260 | 34 | 0 | 0 | 0 | 0 |
| 1987/88 | 275 | 34 | 0 | 0 | 0 | 0 |
| El Salvador | | | | | | |
| 1986/87 | 79 | 11 | 244 | 35 | 341 | 49 |
| 1987/88 | 85 | 12 | 239 | 33 | 320 | 44 |
| Guatemala | | | | | | |
| 1986/87 | 178 | 26 | 0 | 0 | 142 | 21 |
| 1987/88 | 194 | 27 | 0 | 0 | 71 | 10 |
| Honduras | | | | | | |
| 1986/87 | 50 | 6 | 50 | 6 | 58 | 7 |
| 1987/88 | 54 | 7 | 65 | 8 | 73 | 9 |
| Nicaragua | | | | | | |
| 1986/87 | 43 | 11 | 85 | 23 | 22 | 6 |
| 1987/88 | 72 | 19 | 58 | 15 | 0 | 0 |
| South America | | | | | | |
| Bolivia | | | | | | |
| 1986/87 | 265 | 35 | 44 | 6 | 247 | 33 |
| 1987/88 | 300 | 38 | 0 | 0 | 126 | 16 |
| Colombia | | | | | | |
| 1986/87 | 1,887 | 267 | 0 | 0 | 0 | 0 |
| 1987/88 | 1,930 | 261 | 0 | 0 | 0 | 0 |
| Ecuador | | | | | | |
| 1986/87 | 329 | 52 | 0 | 0 | 0 | 0 |
| 1987/88 | 475 | 72 | 0 | 0 | 0 | 0 |
| Peru | | | | | | |
| 1986/87 | 2,198 | 286 | 0 | 0 | 0 | 0 |
| 1987/88 | 2,397 | 298 | 0 | 0 | 0 | 0 |



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